MONTICELLO
Thomas Jefferson's Farm Home in Virginia

FARM LIFE READERS

BOOK FIVE

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PREFACE

THERE is a persistent and pertinent criticism of the text-books used in the schools of America that the viewpoint and content is too restricted and that the objects and interests of the life on the farm and in the country are not sufficiently emphasized. In Farm Life Readers proportionate emphasis is given to the objects and interests of life on the farm and in the great outdoors.

These books are inspirational rather than technical and informational in content and are as well suited for use in the town and city schools as in the rural schools. City children are keenly interested in life on the farm and in the country. A new interest and meaning is given to the reading lessons in Farm Life Readers.

In preparation of this series of readers, the authors had three definite objects:

1. To furnish to grammar school pupils good literature for practice in reading.

2. To enlarge the reader's ideas of country life, — to open his eyes to the dignity of farm labor and to show the freedom, health, and prosperity that may come to those who live in the country and pursue the business of farming with intelligence and energy.

The material which the authors have gathered to serve these ends may be classified in three groups:

1. A series of articles prepared exclusively for Farm Life Readers are coördinated with the selections of classical literature. These original articles explain and interpret

the selections and have the additional value over the notes of explanation included in many series of readers in that they are good literature.

2. A large number of prose selections, bearing on country life, the farm, and the home. These selections from real literature were all made with the definite purpose of giving the child a larger and better appreciation of the home in the country and of the great business of farming.

3. Poems relating to almost every phase of country life. In selecting these the authors were careful to choose only *real* poetry. These poems are arranged so as to correlate with the original lessons and with the prose selections.

In the faith that the ancient vocation of agriculture deserves to be restored to its former high place in the esteem of the people, and that this calling, pursued in the light of modern scientific methods, will solve for us some of the most important problems of personal and social economy, these Farm Life Readers are offered to a discriminating public.

The authors express grateful appreciation to Professor W. K. Tate, Professor of Rural Education in George Peabody College for Teachers, Nashville, Tennessee, for the preparation of suggestions and questions for this New Edition of Farm Life Readers, and to Professor Z. V. Judd, formerly Professor of Rural Education, University of North Carolina, now head of the Department of Education in the Alabama Polytechnic Institute, and to Mrs. Judd for critical reading of the manuscript of this edition and for many valuable suggestions.

TO THE TEACHER

The reading period is the country teacher's opportunity. Country boys and girls have had the advantage of coming into intimate touch with the great fundamental ideas which underlie science and literature, but they are handicapped in their studies by a limited vocabulary. To remedy this defect is the greatest duty and privilege of the country teacher. It must be done largely through the reading lesson. During the reading period the unfamiliar words of the text must be translated into the familiar experiences of daily life and given a meaning in the context. The teacher with insight will frequently discover that even words which are pronounced without hesitation are meaningless to the pupil. To look up these words in the dictionary usually throws little new light on the subject, since the synonym found there is frequently as unfamiliar as the word itself. The dictionary is useful to people who already command a reasonably large vocabulary; for the untrained boy or girl, colloquial discussion of unfamiliar words and expressions is necessary to any clear conception of their meaning.

The following general suggestions are applicable to all the selections of this book:

1. Endeavor to awaken in the class a sincere desire to know and use the new words.

2. Have pupils write down or mark in some way the words in each lesson whose meaning is not clear to them.

3. When an unfamiliar word is reached in the recitation, turn the class into a "guessing" contest as to its meaning,

having always in mind the question: "What must it mean to make sense in its context?" The teacher or the dictionary will decide who has expressed the meaning most clearly.

4. Frequently have new words used in original sentences by the pupils.

5. Teach the correct spelling and pronunciation of new words. Teach the pupils how to use the pronunciation key in the dictionary.

6. Do not hurry through the reading lesson; it is the most important period of the day.

The development of the language sense under this method will surprise both teachers and pupils.

In teaching these lessons, pursue, when possible, the laboratory method; that is, illustrate the truths discussed with the actual objects described, and perform the simpler experiments. Read in advance of the class and collect specimens of plants, soils, etc., for discussion. Invoke the aid of the children in this work of collecting. Full recourse should be had to the fields and the forests, and specimens should be gathered or observations made of animals, plants, and soils. As has been wisely said, every bird, insect, flower, tree, rock, and stream in the neighborhood surrounding the schoolhouse should be made a part of the school museum.

In conducting the recitation, question the pupils on the subjects discussed. It will often happen that one of them will know something about the lesson that will be of vital interest to every pupil in the class.

To aid the teacher in conducting the recitation and for the help and guidance of the pupil in the preparation of his lesson, a list of important words for study and a series of carefully correlated questions have been prepared for each selection.

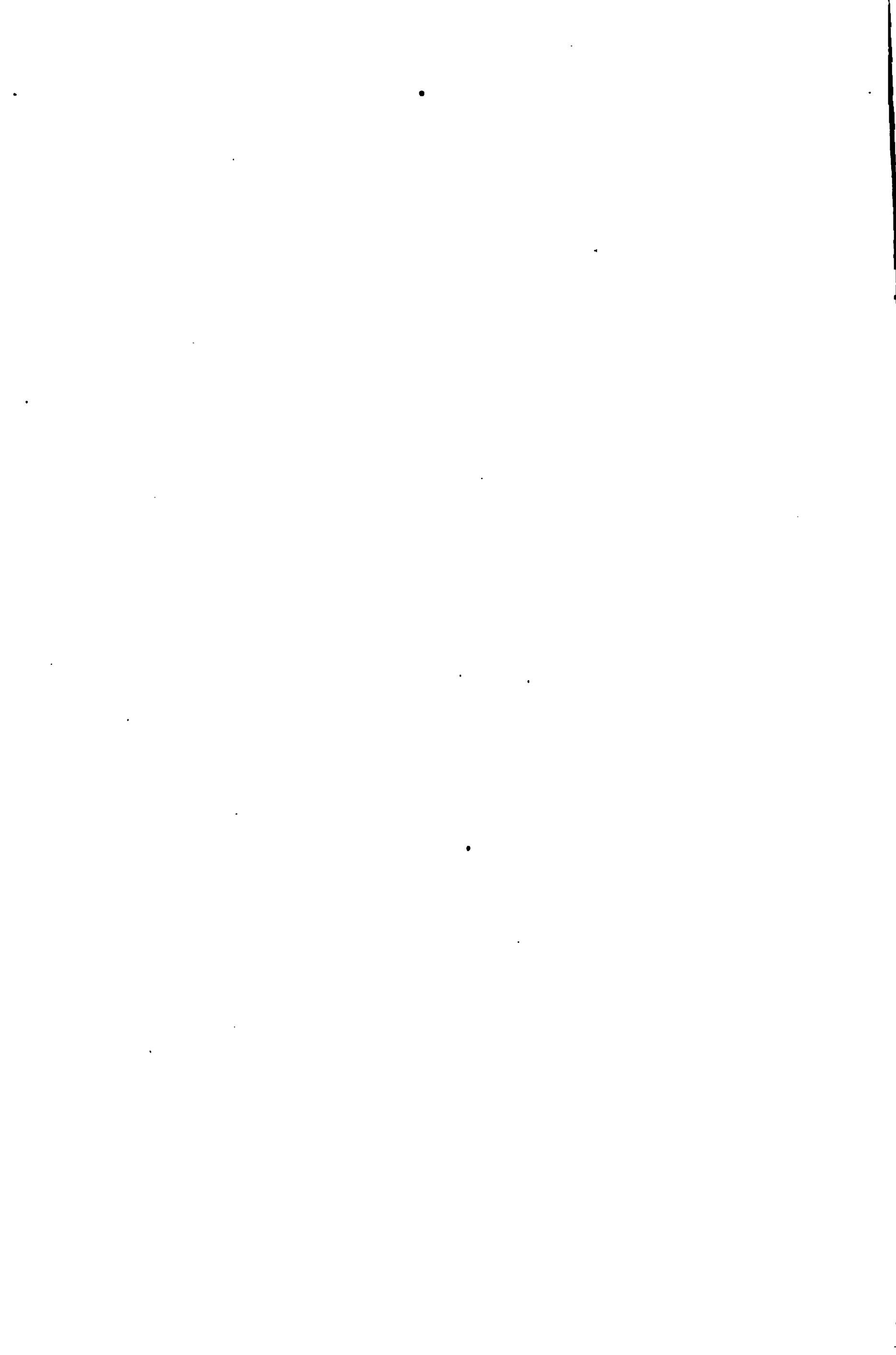
Correlate the work with drawing and with language study. The simpler illustrations and the plants analyzed in class will furnish good models for the drawing lesson.

Your attention is called to valuable sources of help in this work. In each state in the Union there is a state college of agriculture and a state experiment station. Each institution employs a large corps of men and women who are always glad to help the teacher. Get in touch with your state college of agriculture, and ask the help of these students of science who are devoting their time and thought to the subject of better farming. Make an application for whatever free literature the institution is offering.

In almost every county in the Southern States there are a local farm demonstration agent and a girls' canning club agent. Find out who are the agents in your county and call on them to visit your school and help you with your work in agriculture. Have them talk to your pupils and help you in other ways. They will respond gladly.

The United States Department of Agriculture, Washington, D.C., has become an important branch of the Government service, and employs a large number of experienced men and women in agricultural work of all kinds. You can have the advice and assistance of this Department by simply writing and asking for it. A large amount of agricultural literature is published by this Department, and much of it may be had for the asking.

One of the chief factors in the development of a better agriculture has been the agricultural press. Many valuable farm journals are now published. If possible, subscribe to one of these periodicals and keep it on your desk.



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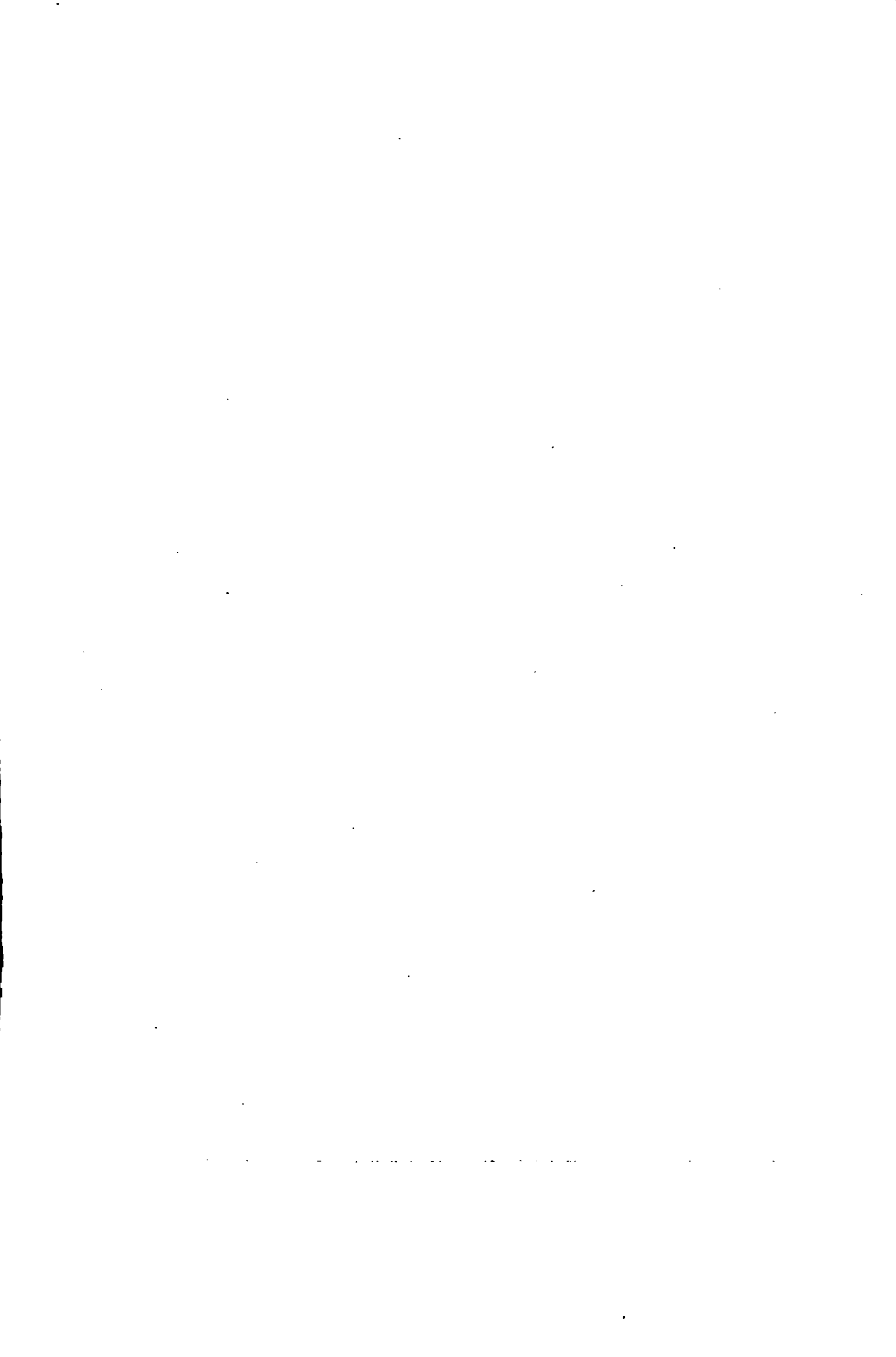

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IN THE COUNTRY

THE COUNTRY BOY'S CREED.

I believe that the Country which God made is more beautiful than the City which man made; that life out-of-doors and in touch with the earth is the natural life of man. I believe that work is work wherever we find it, but that work with Nature is more inspiring than work with the most intricate machinery. I believe that the dignity of labor depends not on what you do, but on how you do it; that opportunity comes to a boy on the farm as often as to a boy in the city, that life is larger and freer and happier on the farm than in the town, that my success depends not upon my location, but upon myself—not upon my dreams, but upon what I actually do, not upon luck, but upon pluck. I believe in working when you work—and in playing when you play and in giving and demanding a square deal in every act of life.

John Faed

GENERAL GEORGE WASHINGTON

THREE FARMERS WHO HELPED TO MAKE HISTORY

I

George Washington

The name "George Washington" usually recalls to our imagination the indomitable hero of the American Revolution, or the grave and reverend first president of the United States; but the real George Washington was a farmer — a simple country gentleman.

Washington led the tattered colonial troops through the fire of seven years of revolution, and steered the Ship of State for the first eight years of its perilous voyage. These were incidents in a life that was devoted to the ancient and honorable calling of tilling the soil. And although we usually think of Washington in the full regalia of his office, as artists are wont to paint him, he was, nevertheless, more often seen in real life in "plain drab clothes and broad-brimmed white hat," with a hickory switch in his hand riding alone through his Virginia plantation.

This plantation, vast beyond our dreams of private holdings, stretched along the valley of the peaceful Potomac river, and supported and gave occupation to four hundred people.

It is said that the Mount Vernon estate was a little town in itself. On it was a blacksmith shop, where the smith and his assistants did not only the work required

for the plantation, but any work that came to them from the outside. A wood burner was also employed to keep the mansion house and the smithy supplied with charcoal. Carpenters and masons and brickmakers there were, enough to do the work of the estate, and also to put in much time in work in Alexandria and the "Federal City," as Washington was then called. Gardeners were kept busy planting thousands of fruit trees, grapevines, and hedge plants as well as vegetables for the kitchen. On this model plantation there was also a water mill where not only meal but flour of a far-famed quality was ground. The barrels for the Mount Vernon flour were made on the plantation. The estate had its own shoemaker and its own staff of weavers. Along the river front were private fisheries which not only supplied all the fresh fish needed on the plantation, but which also yielded enough to sell.

Washington was also a breeder of fine stock. On the Mount Vernon estate were to be found English sheep, excellent hogs, and Arabian horses. The Mount Vernon mules were famous. It is said that some of them were sold at double the price of a good work horse.

Washington was a remarkably successful farmer. At his death he owned an estate worth over a half million dollars. One of his biographers says, "It is to be questioned if a fortune was ever more honestly acquired or more thoroughly deserved."

A visitor to Mount Vernon during the lifetime of Washington wrote of him, "His greatest pride is to be thought the first farmer in America. He is quite a Cincinnatus."

II

Thomas Jefferson

Thomas Jefferson, like Washington, was primarily a farmer. Incidentally he was a lawyer, an author of note, and a writer of state papers, among which was the Declaration of Independence. He was Secretary of State, President of the United States for two terms, and an inspirer and patron of public education.

His plantation home at Monticello, which you see in the frontispiece, was, like Mount Vernon, surrounded by broad holdings of Virginia fields and forests. On this estate, also, were artisans of all descriptions.

Jefferson believed in purebred stock, and imported fine sheep and hogs from Europe. To him we owe the introduction into this country of the Merino sheep. Jefferson believed in the rotation of crops, and had a system which he had worked out for himself.

The "Sage of Monticello," however, was not as successful a farmer as Washington. So many of the years of his eventful life were given to public service that his estates suffered.

However, at his death, he left a comfortable estate,

and while he lived at home he enjoyed to the fullest the freedom of country life, and the inspiration of communion with Nature which he so dearly prized. Jefferson believed and taught that "cultivators of the earth make the best citizens. They are the most vigorous, the most virtuous, and the most independent."

III

Cincinnatus

Cincinnatus, to whom Washington has been likened, was a citizen of ancient Rome. The word "citizen" suggests itself naturally in describing this man, although in reality he was a nobleman, and was, when occasion demanded, dictator, or supreme ruler, of Rome. In times of peace he lived on a small farm outside of Rome, and tilled the ground with his own hands.

There is a story that once while Cincinnatus was plowing his fields, messengers came to him from the Roman senate bearing the news that he had been chosen dictator. War was threatening, and Rome needed her citizen farmer to direct her perilous course.

Cincinnatus left his plow in the furrow, and went to Rome, where he was received with rejoicing by the people. In a little while he raised an army and marched against the enemies of his beloved city, who had, a short time before, defeated a detachment of Roman soldiers.

The great dictator triumphed over the enemies of his country, and brought them back to Rome at his chariot wheels. Then the warrior dictator laid aside his robes of office, and went back to his plow.

HELPS TO STUDY

Word Study.

in dom′i ta ble — unconquerable.

Ship of State — government of the United States.

per′il ous — dangerous.

re ga′li a — decorations of an office or order.

wont — accustomed.

bi og′ra pher — one who writes a history of a person's life.

pri ma′ri ly — originally.

in ci den′tal ly — being of secondary importance.

fron′tis piece — an illustration fronting the first page.

me ri′no — a breed of sheep, originally from Spain, noted for the fineness of its wool.

sage — a man noted for his wisdom.

vir′tu ous — moral, pure.

de tach′ment — troops sent from the main body on special service.

Notes and Questions. — Name three farmers who helped to make history. Describe Washington's appearance as a farmer. Tell how his farm was equipped. What kind of stock did he have? What was the value of his farm at his death? What was his greatest pride? What was Washington's home called? Describe Monticello. What breed of sheep did Jefferson introduce into this country? What system did he work out for himself? What was he called? Why was he not as successful as Washington? How did he regard the "cultivation of the earth"? What did Cincinnatus do in times of peace? Tell a story about him. In what respects did the work of the farm in Washington's time differ from that of ours? Why is Washington sometimes called "The Cincinnatus of the West"? What did Washington and Jefferson do to improve American agriculture?

THE KINGS OF THE SOIL

Shall tales be told of the chiefs who sold
  Their sinews to crush and kill,
And never a word be sung or heard
  Of the men who reap and till?
I bow in thanks to the sturdy throng
  Who greet the young morn with toil;
And the burden I give my earnest song
  Shall be this — The Kings of the Soil!
Proud ships may hold both silver and gold,
  The wealth of a distant strand;
But ships would rot and be valued not,
  Were there none to till the land.
The wildest heath, and the wildest brake,
  Are rich as the richest fleet;
For they gladden the wild birds when they wake,
  And give them food to eat.
And with willing hand and spade and plow,
  The gladdening hour shall come,
When that which is called the "waste land" now,
  Shall ring with the "Harvest Home"!
Then sing for the Kings who have no crown
  But the blue sky o'er their head —
Never Sultan nor Dey had such power as they
  To withhold or offer bread.

HELPS TO STUDY

Word Study.

sin′ew — muscles, strength.
strand — shore.
brake — a thicket.
sul′tan — the ruler of the Turks.
dey (dai) — ruler of Tunis or Tripoli.

Notes and Questions. — Who are the "Kings of the Soil"? Read the words that indicate the time the farmer begins his work. Why would "ships rot and be valued not, were there none to till the land"? Of what use are "the heath and brakes" now? When do they ring with the "Harvest Home"? In what way has a farmer more power than a sultan or dey? Who are meant by "chiefs who sold their sinews to crush and kill"? Why are farmers called "kings"?

Let us celebrate the soil. Most men toil that they may own a piece of it: they measure their success in life by their ability to buy it. It is alike the passion of the parvenu and the pride of the aristocrat. No man but feels more of a man in the world if he have a bit of ground that he can call his own. However small it is on the surface it is four thousand miles deep; and that is a very handsome property.

— Charles Dudley Warner.

A TRAGIC MISTAKE

It all came about through that automobile breakdown. If those people from Coal City had not had a smash-up in front of the Benton's gate, and been compelled to remain under the hospitable roof of the farmhouse all day, the Bentons might never have caught the commercial fever and moved to town.

But they did catch it, and in a bad form, too. When the Coal City family rolled off in their repaired car that afternoon, the mischief had been done.

Mrs. Benton, the widowed mother of the half dozen promising young Bentons, was left like a woman in a dream, for the lady from the automobile had spent her time in telling astonishing and alluring tales about "light housekeeping" that had suddenly put life out of joint for the hard-worked home maker.

When the good woman raked out the ashes from the kitchen stove that afternoon, her mind hovered about the vision of a gas range where one had only to turn a thumb lever and strike a match. When she milked old contrary "Boss," she thought of a world where milk in "nice sealed bottles" was delivered daily on the front porch, and no questions asked. When she wound the dripping bucket up out of the deep, deep well, she longed for a house where hot and cold water awaited the turning of a faucet.

Yes, the widowed mother was in a dream. The Coal City man had offered to give her work for every single

member of her family, with wages paid every Saturday night in "cold cash." He had a number of "interests," he explained to her, and could use even the youngest Benton to advantage.

The stranger had told her, too, of a splendid night school that had been established in Coal City where children who had to work could learn, in a few short hours after supper, more than the country schools had ever yet suspected. And he had described to her the free public library with its "rows upon rows of the best books of the day," where one might spend hours looking over the daily papers and the most popular magazines. Mrs. Benton liked to read, and she wanted her children to like to read, and those "rows upon rows of the best books of the day" decided the question for her.

Sallie, the eldest, went dreaming, too. But her vision was of rows upon rows of "neat little cottages" snuggled close together, where the young people could enjoy each other's society day and night. She dreamed of a car line only half a block away by which one might, in a few minutes, reach a city gay with electric lights and fairly running over with ice cream parlors and moving picture shows.

And all the little Bentons neglected their supper of bread and butter and milk and homemade preserves to dream of city shops where rows upon rows of brightly labeled canned goods offered bliss — Becky, the Brier, even refusing to come to the table.

They talked it over after supper, and unanimously agreed to sell out and move to town. I say "unanimously," but I suppose that is hardly true, since Jim,

THEY TALKED IT OVER AFTER SUPPER

the eldest son, and the man of the family now that his father was gone, gave his unwilling consent only after a storm of reproaches from the Brier. But having once given his consent, this fifteen-year-old head of a family set about planning the business details of the move, while the others amused themselves talking glittering generalities. That night, however, when the lights were out and everybody else was in fairyland, the man of the family buried his face in his pillow and sobbed like the child he was struggling not to be.

The process of moving proved not such a terrible thing after all, thanks to Sallie and the Brier. These two, flanking the man of the family on both sides in point of age, attacked him from different directions at the same time, and triumphed in every skirmish. "Carry all the old plunder to a *town* house!" they cried. "The very idea! Sell it and take the money and buy new furniture." "Sell the farm and get lots of money for stylish clothes and other things."

"Sell the farm!" But the farm couldn't be sold while the children were minors, and nobody wanted to rent it.

"Sell the furniture!" Everybody already had more furniture than space for it.

"*Give* the old truck away!" Everybody suddenly had room for more.

"Sell the chickens and ducks and turkeys and geese — they had been the plague of mother's existence — sell them and depend on buying what would be needed from country wagons like other town folks." But the neighbors maintained that they already had all the poultry

they wanted, till the incumbrances were offered to them for nothing.

And so it went — so everything went, except the horse and wagon and old Boss. These the man of the family asked his father's best friend to take care of for him. There were the bigger, heavier pieces of furniture left, too — unwieldy homemade affairs they were, which nobody wanted. These were left in the little deserted farmhouse, and the young enthusiasts set their faces toward TOWN.

II

"Jim," whispered the Brier, across the bed by which they watched in the dim light.

"Yes," said the sixteen-year-old man of the family.

"You heard what the doctor said?"

"Yes."

"Jim — I'm — sorry."

The boy looked up quickly with a soft light in his eyes but he did not answer, for the wasted form between them was threatening to stir.

Becky got up softly and went out under the stars.

One year had passed since they turned their backs in disdain upon the simple home of their forefathers and set their faces toward the city. One year! Could it possibly be that all this struggle and heartache could be compassed by a twelvemonth? Becky sat down on the little rickety steps and drew her thin knees up under her chin. The rows upon rows of "neat little cottages" stretched out before her in the starry twilight. But somehow, they were not "snuggled" together. Bare,

squalid, poverty-stricken — they fairly jostled each other for elbow room on the stark and sterile waste place on which they had been built; and old papers and rags, like the bleaching bones on the Sahara, marked the path of the wayfarer across the desert. Far in the distance twinkled the lights of the big, cruel, uncaring Town. Yes it was running over with ice cream parlors and picture shows, indeed, but they were there for the ones who could pay the price of what they had to offer. The electric car glinted by, "only half a block away," but it, too, was for the ones who could pay.

The Brier hugged her thin knees tighter, and stared back across that year of awakening — that year which was to teach them that the blessings of the city are not for the very poor. She saw it all again — their arrival in their Land of Promise — and she experienced again, in all its keenness, the stab of that first disappointment. The Brier did not spare herself; again, in her recollections, she arrived at the narrow steps of this new pine box which was to stand for "home." She explored its two pitiful, hot, little rooms. She noted again the rough little shelf of gallery, the few tiny blindless windows. In memory she showed herself the squalid, unsanitary surroundings as they had at first struck her, and, worst of all, the faces of the "young people" with whom she and Sallie had planned to have such a sociable time.

Then she remembered their first desperate attempts to make their dream of a home come true. How they had at once furnished their little pine box house on the installment plan with furniture which, piece by piece, had afterward, in default of payment, returned to the

store from whence it had come. She recalled their futile struggles to raise flowers and vegetables in their few square feet of unfenced yard from which all the true soil had long since been washed away. And she laughed bitterly and sobbed at the same time over their dream of a night school — night school for children whose minds and hearts and bodies were aching from the long, long day of pitiless toil!

Then she remembered those first dreamlike visits to the city after the day's work was done; but she remembered, too, that each had cost almost a day's earnings, and that they soon had to cease. The very ribbons which she and Sallie had so lightly bought after their first pay day, now came back to haunt her. If she only had the price of them now for ice for the fevered patient beyond those hot planks there!

With the thought of the sick mother and of the fearful, losing fight which she had waged, the Brier's own disappointments were suddenly swallowed up by the vast tragedy which shadowed that best of mothers.

The doctor had said that besides this fever — the result of overwork — there was a spot on her lungs! She must have plenty of fresh air, and eggs and milk and cream in abundance, before the spot could be cured.

The Brier let go her knees and put her thin little hands over her eyes. Was it all a dream — that little home in the country among the cool green trees with acres of plenty stretching out under the sunshine on every side — with chickens and ducks and geese, and old Boss, sometimes stubborn, but always generous, lowing in the barnyard? Was it all a dream?

And was this reality? — this world where every single soul had to work from sunup to sunset, forever and ever and ever? — where long hours and poor food left the lungs a prey to spots that only waited a chance to fasten and grow and grow and grow —?

The Brier pressed her thin fingers tighter over her burning eyes. Was this reality — this world where it took every cent one could possibly make to purchase the simple clothes one needed, and coarse fare enough to make one able to work?

Oh, to dream again!

Sallie touched her on the arm. Sallie had come back from town with the medicine. The two sisters entered the sickroom together where Jim was sitting beside the patient. The younger boys slipped in from the back where they had been playing again with forbidden companions.

"I can't help it," answered Sallie, to a look from her brother. "We can't shut them up here when they've been working all day; and outside of this room they are at once in the midst of that crew."

Jim went over to the window and stood, looking out into the night. He was thinking of the father whose hope had been to rear his boys in the country.

Suddenly, there was the sound of strange footsteps on the front porch, and the next moment two unknown ladies stood before the open door with an escort somewhere in the shadowy background. The escort bore a large basket.

Explanations were quickly and kindly made. The newcomers were a "committee" from the charity guild of

THE TWO SISTERS ENTERED THE SICKROOM

St. Andrew's. The "case" had been reported to them by the doctor.

Sallie and the Brier looked at their brother, who had turned from the window. His face was white and drawn. The man in him had been hurt to the quick.

"We are not — we are *not* objects of charity," he said in a low, passionate voice as he came forward.

Sallie laid her hand on his arm quickly.

Becky started to say something, but stopped with her lips apart.

There was a moment of painful silence, and then the shadowy escort came out of the background and touched the boy on the arm.

"Step outside," he said with a glance at the now stirring figure on the bed. And when they were out under the stars together, he continued, —

"I see how you feel about it. We men are all that way, and it's about the best thing in us. But, suppose you let me help you a little — just as man to man, you know. Let me make you a personal loan to tide you over this, and sometime you can pay me back — I'm not afraid to trust you," he answered to the sudden look the boy gave him. "Your employers report you trustworthy and industrious." He put his hand on the boy's shoulder as he spoke, and then, suddenly, the young fellow poured out his heart to him.

"I see, I see," said the stranger, when the boy had finished. "It's the old story. You were surrounded by comforts that ninety-nine out of a hundred in our cities never dream of, but you didn't value your blessings because they were not expressed in dollars and cents.

It's that way with too many who rush from the farm to the city."

"I want to go back," said the boy, passionately. "I want to go back where my mother can have the pure air to breathe. I want to go back where my sisters will not be hired 'hands' and where my brothers will not grow up the associates of *these* —" he made a despairing gesture at the crowd that was gathered only a few feet away — "I want to go back where I can be a man like my father was, and provide for my own."

"Once upon a time," said the quiet stranger, "a man with the soul of a man in him helped me out just in the nick of time. I paid him back his money, of course; but for the human kindness of the act, I am still his debtor. I want you to help me square up with him at last by letting me pass his kindness on."

The boy silently took the hand that was held out to him.

I have it from the neighbors that the young Bentons came back to the traditions of their fathers with a newer, finer courage that triumphed even over adverse seasons, and ultimately made a perfect garden spot of the little farm they had once despised.

It seems, too, that the good mother was won back to health and strength by the pure air and the good, wholesome food of the farm; and that all-the-year-round roses came and made their homes in the faces of the young people.

Only yesterday I heard a young fellow call the second of the radiant Benton girls "Becky the Blossom."

— Frances Nimmo Greene.

HELPS TO STUDY

Word Study.

com mer′cial fever — desire to enter a commercial life.

light housekeeping — housekeeping on a small scale.

u nan′i mous ly — with all agreeing.

gen er al′i ty — that which lacks definiteness or is impractical.

flanking the man of the house on both sides in point of age — one older, the other younger.

truck — rubbish.

in cum′brance — burden.

dis dain′ — scorn.

ster′ile — producing little or no crop.

stark — dried up.

in default of payment — failure to pay.

fu′tile — vain, ineffectual.

guild — association for the purpose of advancing a common cause.

Notes and Questions. — Mention some of the things in the town that seemed attractive to the Bentons. Name some comforts that they had on the farm. What plan would have been wiser than selling out their furniture? Which of their hopes were realized in their new home? Were they worth the sacrifice? Which were not realized? What effect had the confinement of town life had upon their health? Relate the incident that caused the Bentons to return to the farm. How can we show real gratitude for a kindness? In what ways did the Bentons show that they appreciated the farm after returning to it? Make a list of things which city people must buy which country people may have without money. What things might be done in your community to make it a better place in which to live?

HAPPY THE MAN

Happy the man whose wish and care
  A few paternal acres bound,
Content to breathe his native air
    In his own ground:

Whose herds with milk, whose fields with bread,
  Whose flocks supply him with attire;
Whose trees in summer yield him shade,
    In winter fire:

Blest, who can unconcern'dly find
  Hours, days, and years slide soft away;
In health of body, peace of mind,
    Quiet by day:

Sound sleep by night, study and ease,
  Together mixt, sweet recreation;
And innocence, which most does please,
    With meditation.

— Alexander Pope.

HELPS TO STUDY

Biographical.—Alexander Pope, a celebrated English poet, was born in 1688. He was sickly and deformed, and his education was obtained at intervals. Before Pope was fifteen, he made his first attempt to write a poem. At the age of eighteen, he published a poem that attracted much attention. Pope is more often quoted than any other English author except Shakespeare.

Word Study.

pa ter′nal — received or derived from a father.

at tire′ — dress.

un con cern′ed ly — not anxiously.

mixt — mixed, united, mingled.

rec re a′tion — refreshment of strength and spirits after toil.

in′no cence — purity of heart, sinlessness.

med i ta′tion — deep thought.

Notes and Questions. — What is meant by "content to breathe his native air"? How is he supplied with milk and bread? What does the poet mean by saying "the fields supply him with bread"? How do "the flocks supply him with attire"? Of what benefit are his trees? What should be such a man's condition of mind and body? How does he sleep? How does he amuse himself and improve his mind? What is meant by "paternal acres"?

He who knows the most, he who knows what sweets and virtues are in the ground, the waters, the plants, the heavens, and how to come at these enchantments, is the rich and royal man.

— RALPH WALDO EMERSON.

FARMING

The glory of the farmer is that, in the division of labors, it is his part to create. All trade rests at last on his primitive activity. He stands close to nature; he obtains from the earth the bread and the meat. The food which was not, he causes to be. The first farmer was the first man, and all historic nobility rests on possession and use of land.

Men do not like hard work, but every man has an exceptional respect for tillage, and a feeling that this is the original calling of his race, that he himself is only excused from it by some circumstance which made him delegate it for a time to other hands.

If he have not some skill which recommends him to the farmer, some product for which the farmer will give him corn, he must himself return into his due place among the planters. And the profession has in all eyes its ancient charm, as standing nearest to God.

Then the beauty of nature, the tranquillity and innocence of the countryman, his independence, and his pleasing arts, — the care of bees, of poultry, of sheep, of cows, the dairy, the care of hay, of fruits, of orchards, and forests, — and the reaction of these on the workman, in giving him a strength and plain dignity like the face and manners of nature, all men acknowledge.

— Ralph Waldo Emerson.

HELPS TO STUDY

Biographical.—Emerson's ancestors for eight generations had descended from ministers. He was born in Boston in 1803. He was a dutiful and loving boy to his mother who became a widow when he was eight years of age. He entered Harvard College when he was fourteen. After his graduation he taught school in Boston. At the age of twenty he began to study for the ministry.

Ralph Waldo Emerson was a man who loved his fellow men; his whole life was an endeavor to make the world better and happier; his utterances were full of courage, gentleness, and hope. He said: "Don't bark against the bad, but chant the beauty of the good. Never name sickness," and "He who digs a well, constructs a stone fountain, plants a grove of trees by the roadside, plants an orchard, builds a durable house, reclaims a swamp, or so much as puts a stone seat by the wayside, makes the land so far lovely and desirable."

Word Study.

cre ate′ — to cause to exist.
prim′i tive — first, original.
ac tiv′i ty — energy, vigorous action.
no bil′i ty — dignity, commanding excellence.
till′age — farming, agriculture.
del′e gate — to intrust or transfer to another.
rec om mends′ him — puts him in a favorable light.
tran quil′li ty — calmness, peacefulness.
re ac′tion — return impression.

Notes and Questions. — What is the farmer's part in the division of labor? Explain the meaning of "all trade rests at last on his primitive activity." In what way is the farmer a benefactor of mankind? Why should not all men be farmers? What gives the farmer strength and dignity? Why are men coming to respect farming and the farmer more than formerly?

AN INVITATION TO THE COUNTRY

Already, close by our summer dwelling,
  The Easter sparrow repeats her song;
A merry warbler, she chides the blossoms —
  The idle blossoms that sleep so long.

The bluebird chants, from the elm's long branches,
  A hymn to welcome the budding year.
The south wind wanders from field to forest,
  And softly whispers, "The Spring is here."

. . . .

Though many a flower in the wood is waking,
  The daffodil is our doorside queen;
She pushes upward the sward already,
  To spot with sunshine the early green.

No lays so joyous as these are warbled
  From wiry prison in maiden's bower;
No pampered bloom of the greenhouse chamber
  Has half the charm of the lawn's first flower.

Yet these sweet sounds of the early season,
  And these fair sights of its sunny days,
Are only sweet when we fondly listen,
  And only fair when we fondly gaze.

There is no glory in star or blossom
  Till looked upon by a loving eye;
There is no fragrance in April breezes
  Till breathed with joy as they wander by.

. . . .

— WILLIAM CULLEN BRYANT.

HELPS TO STUDY

Biographical. — William Cullen Bryant was but ten years of age when his first poem appeared in a country newspaper. It was probably in his seventeenth year that "Thanatopsis" was written.

While Bryant was attending a law school his father discovered the poem by accident among his papers. He took it to Boston and showed it to several literary men. Their high praise of it led to its publication.

Before he was twenty-one, Bryant wrote "Thanatopsis," "To a Waterfowl," "To a Yellow Violet," and other poems of merit.

Bryant was born in 1794 and died in 1878. He is called "The Father of American Poets." For more than a third of a century he was prominent among American authors and journalists. He proved at the age of eighty-three that he had not lost his poetic ability by writing the "Flood of Years."

Word Study.

pam′ pered — fed luxuriously.

Notes and Questions. — Who is the merry warbler? How does she chide the blossoms? Why? What season is indicated by "budding year"? What does the south wind whisper? What is the daffodil called? Why? Compare the lawn's first flower with the greenhouse flower. When are the "sweet sounds" sweet and the "fair sights" fair? What makes the glory of star and blossom?

THE BOYS' CORN CLUBS

I

The story of the Boys' Corn Club movement is one of the most interesting and inspiring chapters in the history of the American people. A number of years ago Mr. William B. Otwell, Secretary of the farmers' institute movement in Macoupin County, Illinois, after making a number of unsuccessful efforts to get the farmers interested

A CORN CLUB MEETING

in the work for which his institute stood, concluded that he would be more successful if he would turn his attention and efforts to the boys.

To begin with he decided to offer the boys some improved seed corn and to ask them to grow as many hills of corn as he gave them kernels. He published a notice

in the papers in which he had formerly been advertising his farmers' institute meetings, stating that he would mail to every boy in the state who would send to him a postage stamp as many grains of seed corn as the stamp would carry.

As soon as he had published this notice, Mr. Otwell went about among the public-spirited people of his town and raised by subscription a fund of forty dollars. One hardware company donated a valuable turnplow for a prize. He then drew up rules governing the contest which he proposed to put on foot, and offered forty prizes of one dollar each, and the turnplow as a sweepstake prize.

INSTRUCTIONS BY MAIL

This energetic secretary then purchased a quantity of the very best seed corn for distribution to the boys who should reply to his notice. In a short time there came to his office about five hundred letters from five hundred farmer boys of the state of Illinois, each inclosing postage for the promised supply of improved seed corn. In a day or two nearly five hundred letters went out from Mr. Otwell's office, bound for the five hundred farmer boys' homes, and the contest was on. These five hundred farmer boys were soon engaged in a struggle in which they were measuring arms against each other, but in which it was possible for every boy to be victor in a degree.

At the end of the year when it came time to meet and decide the contest, it was scarcely necessary to advertise the meeting. Mr. Otwell had merely to name the date and place for the award of the prizes, and the contestants came. There assembled at that meeting scores of wide-awake, interested boys who came laden with samples of golden grain; but better still, with the boys came their fathers, wide-awake now and interested. Before the inauguration of the contest, very few of the fathers could be persuaded to attend the institute meetings, and those that came would often discourage the movement. After the boys took hold, however, their enthusiasm proved a wonderful stimulus to the older farmers.

A CORN CLUB BOY AND HIS FATHER

The following year the contest was conducted on a larger scale. The enthusiasm of the first year's work had spread to such an extent that when Mr. Otwell announced a meeting for the award of prizes, there gathered approximately sixteen hundred people in and about the building in which, two years before, he had failed to interest the older men. There were exhibited by the boys at this meeting between four hundred and five hundred specimens of fine corn.

When the judges came forward to award the first prize, — a handsome bicycle, — the winner, a young fellow between thirteen and fourteen years of age, arose to his feet. He was clad in the blue overalls in which he had worked his acre of corn. All eyes were upon him.

In speaking of him, Mr. Otwell said, "I have known him to carry, during the dry summer months, water in a pail to his acre of corn to tide it over the dry spells in order to get as large a yield as possible, in the contest in which he was trying to win over his fellow boy farmers." It is said that when the young winner's name was called and he walked to the front to get his prize, no governor of the state of Illinois ever received a greater or more enthusiastic ovation than did this young hero of the soil.

II

Some years ago a number of leading and progressive county superintendents in the South saw, in the Boys' Corn Club movement, an opportunity to do educational work of real value, and began to organize the boys of their counties into Boys' Corn Clubs.

In 1909 an effort was made by Dr. S. A. Knapp, then in charge of the Farmers' Demonstration Work of the United States Department of Agriculture, to give systematic aid in furthering this important and valuable educational work. In coöperation with the state colleges of agriculture in the several southern states, Doctor Knapp appointed an officer to be known as State Agent in Boys' Corn Club work. The duties of this agent are to coöperate with county superintendents, teachers, local demon-

A MEETING IN THE CORN FIELD

stration agents, business men, and other public-spirited people in the Boys' Corn Club work.

The plan pursued in this work is as follows: The county superintendent of education or the county school commissioner is the head of the work in the county, and each teacher is the leader of the work in his school district. Where there are enough boys in a school or a community, who wish to join the club, a local club is organized. Where this is done, the boys adopt a constitution and by-laws to suit their work, and elect such officers as are necessary to direct it. Such clubs have frequent meetings, at which the members discuss all kinds of farm questions, and make reports on the progress of the work with their prize acres of corn. Each boy, on joining the club, agrees to grow a prize acre of corn at his home, and to use up-to-date methods.

Usually there are many valuable prizes offered in the

ONE BOY'S ACRE

counties and in the states for the boys who get the best results from their prize acres of corn. In awarding the prizes it has always been the desire of the people in charge to give them to the boys who raise the largest number of bushels of corn on their acres at the lowest cost. It is usually the plan also to have the boys exhibit samples of carefully selected ears of corn from their crops, at school fairs, county fairs, and state fairs.

One of the most attractive prizes offered each year in the Boys' Corn Club work is a trip to Washington. On these trips the boys have the opportunity to see the national capital and to meet the President of the United States, the Secretary of Agriculture, and other distinguished officials. They also visit the great departments of the national government located at Washington.

The boys, encouraged by their county superintendents

and teachers, and stimulated by the prizes offered, have forced from their acres some remarkable yields.

However, the important thing is not the large yield made now and then, but the average increase over what the average farmer makes. These good acres everywhere encourage the farmers to do better. Thousands of farmers

A CLUB ON THE MARCH

visit the acres of the boys, and being inspired by the sight of the fine corn resolve to do better farming.

In this great work the bright young farmer boys of the South are helping to solve the problem of how to raise enough corn for home use instead of buying it at high prices. A lesson which they are teaching the grown-up farmers is that wonderful possibilities are in the soil when it is properly handled. These young farmers are also learning for themselves that they can make money by farming when they use brains as well as muscle, and

that in the business of farming lie health, freedom, happiness, and contentment.

There are thousands and thousands of boys growing their prize acres of corn with great interest and enthusiasm, and each boy who produces more corn on his acre than has ever been produced before in a like space, is helping to develop the great science of agriculture, and is a real patriot.

HELPS TO STUDY

Word Study.

pub′lic-spir′it ed — interested in the welfare of everybody.

do′nat ed — gave.

sweep′stake — a general prize.

en er get′ic — full of energy.

vic′tor — conqueror.

in au gu ra′tion — beginning.

stim′u lus — something that arouses to action.

ap prox′i mate ly — very nearly.

o va′tion — greeting with applause.

co op er a′tion — art of working together.

pa′tri ot — one who loves his country.

Notes and Questions. — What are the duties of the state agent to Boys' Corn Club work? What is the plan of work? What are some of the prizes? Tell the story of the first boys' corn club. Describe the organization of the corn club in the South.

To the Teacher. — Organize the boys in your school and community into a corn club. Enroll all boys between the ages of ten and eighteen and forward names to County Superintendent or County Farm Demonstration Agent. Offer prizes for the boys getting best results. Have a public meeting and corn show at school in the fall when prizes are awarded.

THE BOYS THAT RULE THE WORLD

You can write it down as gospel:
With the flags of peace unfurled,
The boys that run the furrow
Are the boys that rule the world!

It is written on the hilltops —
In the fields where blossoms blend;
Prosperity is ending
Where the furrow has an end!

The glory of the battle,
Of clashing swords blood-red,
Is nothing to the warfare
Of the battle hosts of Bread!

The waving banners of the fields
O'er the broad land unfurled —
The boys that run the furrow
Are the boys that rule the world!

— SELECTED.

Notes and Questions. — Who are the boys that "run the furrow"? In what sense do they rule the world? How does the poet emphasize the assertion that he makes in the second stanza? What comparison is made in the third stanza? What are the "waving banners of the fields"?

THE GIRLS' TOMATO CLUBS

I

The person who gave us the idea of organizing the farmer boys into corn clubs deserves great honor and praise, but to my mind it was even a greater thought and plan to organize the girls into tomato or canning clubs.

A TOMATO CLUB GIRL

When the corn club work was started on a large scale, it was the plan of those interested to start a work somewhat similar for the girls. Hence, as soon as money was available, this splendid movement that means so much for the girls was begun and has become, like the corn club work, one of the most important and valuable movements.

The tomato was selected for the club work because it is one of the most interesting fruits in the world. Tomatoes are almost universally liked; they are beautiful; they are easily cultivated; they ripen from early spring until late autumn; they may be kept for some time so

that they may be exhibited at fairs; they are enjoyed at breakfast, dinner, and supper; and they may be used while green as well as after ripening. We can them; we stuff them; we eat them sliced; we make catsup, preserves, tomato mincemeat, pickles, sauces, jelly, and candy from them. We may eat them with sugar or eat them with salt. They are delicious any way we use them.

LOOKING OVER HER CROP

The clubs are carried on in this manner: Any girl between the ages of nine and eighteen years in the county, where the work is organized, may become a member. She must plant one-tenth of an acre to tomatoes, and must do all of the work connected with her garden except preparing the soil for her plants. Prizes are offered for the largest yield, the largest net gain, the best display in glass jars, best history of garden work, the largest tomato, the most perfect tomato, the largest, neatest, best collection of tomato recipes.

II

This work has been organized in practically every state in the South. A woman agent has been appointed in each state by the United States Department of Agri-

THE GIRLS GROW ALL KINDS OF VEGETABLES

culture. This agent coöperates with the state colleges of agriculture, state departments of education, industrial and normal schools for girls, county superintendents, teachers, women's clubs, county demonstration agents, and all other public-spirited people. It is usually the plan to have a woman agent in each county in charge of the work for her county.

The girls are encouraged to grow not only tomatoes but all kinds of vegetables, to secure simple, inexpensive

THE CANNING PICNIC

home canning outfits, and to learn how to can all of these vegetables.

One girl in 1911 canned one thousand and twenty-three number two cans of tomatoes from her one-tenth acre plot, and in addition made one gallon of preserves, one and a half gallons of green tomato pickle, and one and a half dozen bottles of catsup. Another girl in the club work made as many as twenty-four different kinds of products from her tomatoes, and realized one hundred dollars from her one-tenth acre. Many girls have grown their tomatoes, canned them, sold them, and used the money for their education. Other girls have sold their products, have purchased fine pure-bred chickens, and have started a very profitable poultry business.

This work of tomato growing has become very popular with girls, and at present there are thousands of them, each growing her one-tenth acre of tomatoes as well as other vegetables, and each possessing and using a home canning outfit.

One of these girls writes: "My sister and I joined the Tomato Club because we wished to go to school, and had finished the grades in the school near our home in the country. We thought we would grow the tomatoes along with some other vegetables, can, and sell them — planning to take the money, rent two rooms near the high school, and keep house on a small scale in order to go to school this winter." A later letter from her stated that the two had canned seven hundred thirty number three cans, and that they would be off to the high school in a few days. The seven hundred thirty cans at ten cents apiece brought seventy-three dollars. This was sufficient to pay for rent of rooms, books, school incidental fees, and other expenses. So much for industry and ambition.

Another girl — one who had been in the habit of working in a cotton factory during her school vacation — became interested in the Tomato Club work. She planted her one-tenth acre in tomatoes and cared for them during odd hours. She made eight hundred twenty-three cans of tomatoes. At ten cents each these tomatoes realized for her, eighty-two dollars and thirty cents. It cost her fifteen dollars to grow the crop, leaving her a profit of sixty-seven dollars and thirty cents. During the three months' vacation she could have made only sixty dollars, working constantly and in close confinement in the factory.

One energetic girl put up one thousand five hundred thirty-one number three cans of tomatoes, at a total cost of fifty-nine dollars and fifty cents, realizing a net gain of ninety-three dollars and sixty cents. In other words she made a clear profit of ninety-three dollars and sixty cents from one-tenth of an acre of southern soil. This is at the rate of nine hundred thirty-six dollars per acre clear profit.

A TOMATO CLUB GIRL AND HER BROTHER
With the bicycles they earned

In one southern county during the year 1912, four hundred thousand cans of tomatoes, fruits, and other vegetables were put up as a result of the work of the Tomato Club. Merchants in the leading business towns reported that they bought all their canned goods from these girls and found them most satisfactory. The money which the merchants paid for these products went back into the homes of the farms, the four hundred thousand cans returning to the farmers' families forty thousand dollars.

HELPS TO STUDY

Word Study.

a vail'a ble — ready to be used.

net gain — profit after taking out expenses.

rec'i pe — directions for making.

in ex pen'sive — not costly.

re′al ized — made.
prof′it a ble — yielding or bringing gain.
in ci den′tal — small, of little value.

Notes and Questions. — Why was the tomato chosen for the girls' club? How are the clubs carried on? What does the woman agent of the tomato club do in each state? What was the record of one girl in 1911? What have other girls done? Tell the story of the factory girl and her tomato crop. Give other records. How may the merchant help the canning club?

To the Teacher. — Find out if your county has a canning club agent, and, if so, invite her to visit your school. Assist her in organizing all of your girls into a canning club. Encourage the girls by visiting and helping them with their work. Arrange a canning picnic at your school during the canning season.

A SONG OF THE SIMPLER THINGS

O, sing me a song of the Simpler Things —
  Of the lives that love and laugh.
I'm tired of War and the Song of Sweat
  That tells but the Bitter Half.
The earth is strong and the world is well —
  'Tis the singer that's all awry.
The sun is up and will never go down
  Till the stars are in the sky.

O, sing me a song of the manly man
  Who knows his burden's his own,
The man who laughs in the rain or shine
  While he swings his hoe alone.
It isn't the Thing That's Done To Us
  That burns like a red-hot brand —
It's the Thing We Do or Leave Undone
  Because we don't understand.

O, sing me a song of the fruits and flowers —
  The tints of the peach and rose,
Or the blush that blows on the virgin cheek
  Of the Fairest Thing that grows.
I'm tired of Wars and Alarum Bells
  And the Light that Flames the Sky.
O, sing me a song of the Simpler Things
  That live and love and die.

— Clarence Ousley.

HELPS TO STUDY

Word Study.

a wry′ — aside from truth, or right reason.
vir′gin — fresh, new.
a lar′um — alarm.

Notes and Questions. — What are some of the "simpler things" which are nevertheless the greatest things in the world? Name some simple tasks of the farm home on which the welfare of the whole world depends. What is the meaning of the last two lines of the first verse? What is the poet's description of a "manly man"? What does the poet say causes us to suffer most? Read Longfellow's "A Rainy Day."

WORK DONE SQUARELY

The longer on this earth we live
And weigh the various qualities of men,
The more we feel the high stern-featured beauty
Of plain devotedness to duty,
Steadfast and still, nor paid with mortal praise,
But finding amplest recompense
For life's ungarlanded expense
In work done squarely and unwasted days.

— JAMES RUSSELL LOWELL.

HOME SONG

Stay, stay at home, my heart, and rest;
Home-keeping hearts are happiest,
  For those that wander they know not where
  Are full of trouble and full of care,
To stay at home is best.

Weary and homesick and distressed,
They wander east, they wander west,
  And are baffled, and beaten and blown about
  By the winds of the wilderness of doubt;
To stay at home is best.

Then stay at home, my heart, and rest;
The bird is safest in its nest:
O'er all that flutter their wings and fly
A hawk is hovering in the sky;
To stay at home is best.

— HENRY WADSWORTH LONGFELLOW.

HELPS TO STUDY

Biographical. — From his mother Henry Wadsworth Longfellow inherited his poetic nature. She loved flowers, sunshine, poetry, and music, and early instilled a love for them in her boy. His father was a lawyer, noted for his scholarship and purity of character.

He entered Bowdoin College at the age of fourteen and graduated fourth in a class of thirty-eight; afterwards he spent three years in Europe preparing to teach the modern languages in the college from which he had graduated. He afterwards held a similar position at Harvard. He spent nineteen years in teaching, and the remainder of his life he devoted to literature.

Longfellow died in 1882. He was the first American author who was honored with a memorial in Westminster Abbey.

Charles Kingsley said in speaking of Longfellow: "I do not think I ever saw a finer human face." His hair was white and thick; his blue eyes kindly, his voice melodious, and his manner refined.

Word Study.

baf'fled — disappointed, defeated.

hov'er ing — hanging suspended in the air.

Notes and Questions. — What are some of the things necessary to a happy home? What does the poet mean by "baffled and beaten and blown about"? Explain the "winds of the wilderness of doubt." What comparison does he make to impress the thought that "to stay at home is best"?

THE CULTIVATION OF PURE FUN

I

"I wish somebody would start a club for the raising of pure fun!"

There were cries of "Hear! Hear!" in a half dozen young voices, and then somebody else called out, "A hundred bushels to the acre, Dick!"

Everybody laughed, and the girls all began talking at the same time. They were returning home in the late afternoon from a lecture delivered to the Boys' Corn Club and the Girls' Tomato Club of their district.

It seemed that Dick Winthrop's laughing suggestion met with almost unanimous approval, for, from one end of the wagon to the other, the girls began advancing suggestions as fast as they could talk, while the boys made polite, but desperate struggles to wedge in a few pointed remarks. It was not until they reached Fanny Trimble's house that the boys had any chance at all, and it was Dick who brought things to a head — somehow, Dick had a way of making things happen.

"Friends, Romans, countrymen!" he exclaimed with a decided accent on the "countrymen!" "Let's give ourselves a cordial invitation to get out and eat peaches with Fanny while we fight this thing out."

Fanny seconded the motion hospitably, and in a few minutes, a half dozen half-grown boys and girls had

preëmpted Mrs. Trimble's wide front porch, and baskets of peaches were being passed among them by several of the little Trimbles.

Dick modestly nominated and elected himself temporary chairman of the meeting, and announced as the first by-law that the girls were positively not to do more than three-fourths of the talking. He had trouble in carrying his by-law into effect, however, and finally had to resort to a method by which all could express themselves at once. Pencils and paper had to be brought into use.

Everybody was to write his ideas of the best methods of raising fun, and all the suggestions were to be read aloud by "the chair" — so ruled Dick; but Fanny interfered, and announced that she would read them herself.

When a girl gets restless and tosses her curls, there is not very much that a real manly boy can do toward curbing her, so Fanny read the collected suggestions to the assembled company.

"Hay rides, picnics, parties," she began, but the chair interposed:

"Hay rides and picnics and parties," he declared, "are as much a matter of course as is wash day; take them for granted, and tell us something we do not know." Thereafter the reader had to do a great deal of skipping, for everybody had of course suggested the time-honored diversions first.

"Horseback riding," read Fanny, and the boy who had made the suggestion was on his feet in an instant.

"There are plenty of good saddle horses in the neigh-

PEACHES WERE PASSED BY THE LITTLE TRIMBLES

borhood," he declared. "Let the girls make riding skirts, and let us often have a run together, late in the afternoons. It will be no end of fun if we go in a crowd; and, besides, there are plenty of interesting things to be seen about here."

The suggestion was accepted unanimously.

"'Possum hunts," continued the reader.

"Good!" shouted the chair. "Father wouldn't ask anything better than to take us" — and then in his most approved voice as presiding officer — "The chair recognizes the honor pupil of the fifth grade."

A tall, slim girl with a rather serious face had risen to her feet as Fanny Trimble began to unfold a three-cornered paper.

"I want to explain my suggestion," she said. "I wrote, 'have a circulating library among ourselves,' but I know some of you are going to say that the thing cannot be done. Now this is how I think it can be carried on through our club: We can meet regularly, Saturday nights, at the schoolhouse. We can have our suppers there, picnic fashion, and Miss Latham will be glad to chaperon us. We are all making money on our corn and tomatoes and we can afford to spend a little on our pleasures. Let's buy some interesting storybooks and subscribe for some papers and magazines as a club. Then when we meet we can each take home a book or a magazine to keep until the next Saturday. At our meetings we can talk over the things we have read —"

"And have debates about them," put in a boy on the steps.

"Glory be, fellows, we will get a chance to talk back!"

laughed Dick, with a cut of his mischievous eye at Fanny, and then they all chattered at once and enthusiastically about the fun of debating, until the chair called them to order, and the reader resumed:

"Get up shows" — and again bedlam broke loose. Everybody wanted to be in a "show," and in very little time it was agreed to play something like "The Sleeping Beauty" at the schoolhouse and charge admission to make money with which to buy books and magazines for their library.

"We'd better give the first entertainment before school opens again, so we can have some money to start with," put in a new voice.

"Miss Latham says we ought to have — a — 'mirrorscope,' she called it — a sort of magic lantern that shows up the pictures on post cards — to give entertainments with," said another.

"Let's have a band," exclaimed one hitherto silent boy. "Archie can play the fiddle and Tom has a banjo. Minnie and Miss Latham can take turns at the piano —"

"*What* piano?" put in a cross-looking little girl who up to this time hadn't been able to make herself heard.

"Why, why," stammered the boy who had suggested music, "why —"

"We'll *buy* a piano," declared Dick promptly. "Oh, not this evening, and probably not early to-morrow morning; but before this year is out, we'll have a piano in that schoolhouse that will be the property of the Pure Fun Club and Will's band — and maybe, glee club — will be giving concerts."

And so the suggestions went:

"Let's give the girls the swimming hole two days in the week, and fix them a bathhouse," said one of the boys.

"Let's have a tennis court and a croquet ground at the school," ventured a small girl; "Miss Latham knows how to play, and she'll show us."

"Let's get up a sort of school-district fair for boys and girls to show what they have raised this year, and invite all the people to come to the schoolhouse on afternoons during fair week to see the exhibits," suggested a young farmer of the most promising type.

The last official business of the Pure Fun Club that day was the election of officers. It took very little balloting to install Dick as president, Fanny as vice president, and the music lover as secretary and treasurer. The honor pupil of the fifth grade — she still held that title though school had been closed a month — was duly appointed chairman of the program committee.

"And now," announced the chair, "in closing I would state that our hospitable hostess can bring out the watermelons."

"What watermelons?" demanded the young lady of the curls.

"Those that have been cooling in the spring branch, of course," answered the presiding officer, severely.

The newly elected vice president looked her superior officer in the eye for a moment, and then they both laughed.

"Well, come on," she exclaimed, leading the way, "if you want any watermelons, you'll have to walk after them, that's sure!"

II

The Pure Fun Club had its troubles — most of us do. At all-day singing the very next Sunday, serious opposition developed. It was the first time that the careful and serious-minded parents of the young members had had a chance to talk the matter over together, and there gradually developed among them an ominous attitude toward this new thing that had suddenly waked up every boy and girl in the community. The phrases, "too much freedom," "minds off their studies," "neglect of work," etc., were floating around generally; and the young people present began to look downcast, when Miss Latham came out strongly on their side. Miss Latham, their little teacher, had a way of coming out on their side.

The teacher said that, for her part, she thought children studied better when they were happy, and had plenty of out-of-door fun, and that she was willing to chaperon anything in the shape of *pure* fun.

Then, all unexpectedly, the minister declared for pure fun too, and said he'd like to join the riding parties. He told the troubled parents that harmless pleasure in God's out-of-doors was one important factor in the making of good, strong men and women.

And last, but not least, farmer Winthrop, Dick's father, came to the rescue. Mr. Winthrop had great influence among them, for he had a habit not only of speaking the truth but of acting the truth, and his neighbors trusted him.

He made a rousing, ringing speech on the subject of

pure fun, pointing out to his listeners that in the cities every sort of amusement that could be devised was being offered to attract the young, while in the country too little was being done to make the young people contented and happy in their surroundings.

Farmer Winthrop's neighbors looked at each other. They were thinking of Seth — Seth Winthrop, the prodigal son, who nearly two years before had grown restive under the monotony of his farmer-boy life, and had left it for the city. There had been distressing rumors lately about the boy, and they now saw those rumors confirmed in the face of Seth's father. Though their broken-hearted neighbor did not mention his first-born son as he spoke to them, they knew where his thoughts and his fatherly love were when he said:

"The farmer's life is the freest, most independent, most wholesome life in the world, and it generally lies nearest to God. It remains for us to make it the *happiest* life in the world, if we want to keep our boys and girls away from the low, cheap attractions offered by the towns. My father was a farmer before me," he concluded proudly, "and the one son left to me shall be a farmer after me, and a live, enthusiastic, happy farmer, at that, if I have anything to do with it. — I'm going to stand by those youngsters in all that they have planned, and I'm going to take them on a week-end camping trip as soon as the chestnuts are ripe."

. . . .

And farmer Winthrop was as good as his word — he was always as good as his word, and his word was

always good to start with. Miss Latham continued to come out on the young people's side, and the minister kept his promise in letter and in spirit.

Before autumn laid her cool fingers on the chestnut burs and conjured forth their treasures, the Pure Fun Club had converted the whole neighborhood.

It had come to be a welcome sight to the farmers to see a bevy of boys and girls riding across country on a holiday afternoon in a triumphing chase after health and happiness.

They had all enjoyed the performance of "The Sleeping Beauty," too, and had been more pleased than they would acknowledge with the splendid stage that the young people had built and equipped at the schoolhouse.

The grown people had also come to enjoy the Saturday night meetings of the club, and had proved very handy as judges of debates, awarders of prizes, etc.

A new piano had been installed by virtue of farmer Winthrop's making the cash payment for the club and promising to stand for whatever monthly installment the club might be unable to meet. The piano had been hardly settled in its new surroundings when it developed that there was a good deal of musical talent in the neighborhood, and before the year had passed into the "sear and yellow leaf" an orchestra and a choral class had been formed, that ultimately afforded pleasure to old and young alike.

The honor pupil of the fifth grade of the previous year, as librarian of the club, never rested till she had in the library corner of the school a bookcase full of interesting books, and a good-sized table covered with

papers and magazines. Here again the grown-ups profited, for that small nucleus gradually developed into a neighborhood library.

That fall, also, was held the first of a long series of neighborhood fairs. It was arranged at the schoolhouse and lasted a week, and such another exhibit of young folks' handiwork was never yet seen as was displayed in those tastefully arranged booths every afternoon. It is to be chronicled here that at least eight girls learned how to make pickles and preserves and jelly that fall.

And then, when the sound of falling chestnuts broke the silence of the autumn woods, Farmer Winthrop and his good wife, assisted by Miss Latham, took the collected youth of the countryside on a week-end camping trip to the distant hills.

They pitched their tents beside a bold mountain spring, spreading cots for the girls, and swinging homemade hammocks under the trees for the boys. When it developed that there was one hammock missing, Dick, as host, looked with dismay at his father.

"And where am I to sleep?" he asked.

"Roll up in a blanket on the ground, you scamp," retorted the old man. "Your grandfather slept that way for four years, and no manlier man ever died for his country." And Dick rolled.

They built a rock furnace for cooking, and never since the accidental roasting of the first pig was there anything quite so delicious as the bacon that was fried upon it. If the hoecakes that the girls improvised were any less delightful than those that their mothers made at home, those boys never suspected it, and when it came to

fresh fish, fried with the bacon, and partridges, roasted before the glowing coals, the fare simply couldn't have been better.

Then something happened on the very first afternoon of that camp which was looked back to ever after as an event in the history of the Pure Fun Club. While supper was yet in course of preparation, and after Dick had chosen and laid aside the blanket in which he was to demonstrate that he was a worthy descendant of his soldier grandfather, he and Miss Latham and Fanny deserted the others to follow the course of the bold spring branch. Not a quarter of a mile below, they knew, it widened to a lake; and it pleased them now to go on a reconnoitering trip against the morrow's fishing.

After a short but invigorating walk, the three came out on the bank and stood entranced. An Indian summer sunset lighted the parti-colored woods around, and Miss Latham was just calling attention to the reflected tints in the water, when, suddenly, on the bright surface, there shone the stark white face of a drowning man.

The soldier's grandson plunged after it in the same instant. There was a sharp struggle, for the smiling water turned treacherous. Dick had the fight of his life on his hands. For a few interminable moments it looked to the desperate watchers on the bank, as if he must lose out and go down with the burden he would not release.

With a last tremendous struggle, however, he reached the girl's hand that was being held out to him. Fanny was standing breast high in the water, holding to Miss

FANNY STRETCHED OUT HER HAND

Latham with her left hand while she stretched out her right to her heroic comrade.

The next moment the three were leaning over the unconscious young man who had been saved.

"Dick," whispered Fanny, "did you know that it was Seth?"

"No," he panted. "I only saw that it was some fellow's last chance."

It was not until the half-drowned boy had been rubbed to life and had been comfortably placed before the great camp fire, that they all learned just how it had happened. It seems that the penniless prodigal, making his footsore way across-country to his father's house and nearly fainting with thirst and fatigue, had knelt down beside the treacherous waters to drink, and had lost his foothold. His strength already spent, he was soon dragged under by the greedy current, and must, perforce, have gone down for the last time, had not the searchers after pure fun been ready for the purely heroic as well.

And this is how Farmer Winthrop's prodigal son returned, grave-eyed and chastened, to his father's house, thereafter to become the most dutiful of sons. And this is why the Pure Fun Club has had the hearty support of old and young from the time when the sound of falling chestnuts broke the silence of the autumn woods that year down to this day.

— Frances Nimmo Greene.

HELPS TO STUDY

Word Study.

u nan′ i mous — all agreeing.

seconded the motion — approved the proposal.

pre empt′ed — took.

nom′i nat ed — proposed.

tem′po ra ry — for the time being.

chap′er on — to take care of, to protect.

bedlam broke loose — a great noise was made.

glee club — a club for singing.

of fi′cial — relating to office.

om′i nous — threatening.

mo not′o ny — sameness.

con′jured forth — brought out by magic.

ul′ti mate ly — finally.

nu′cle us — beginning.

chron′i cled — noted in writing.

re con noi′ter ing — exploring.

par′ti-colored — of many colors.

stark white — deadly white.

pen′ni less prod′i gal — a wanderer without money.

Notes and Questions. — What are the ways in which the young people amuse themselves in your community? Make a list of all the good games you know. The school library should have a copy of Bancroft's Plays and Games. Is your community organized to help all the boys and girls in it to have good, clean fun? Have you a basket-ball court at school? Do you have a community picnic at least once a year? Have you a school glee club or orchestra? Is there a community literary society? Why not begin now with the help of your teacher to plan some pure fun for your community?

OUT TO OLD AUNT MARY'S

Wasn't it pleasant, O brother mine,
In those old days of lost sunshine
  Of youth — when the Saturday's chores were through
  And the "Sunday's wood" in the kitchen, too,
  And we went visiting, "me and you,"
    Out to old Aunt Mary's? —

It all comes back so clear to-day!
Though I am as bald as you are gray, —
  Out by the barn-lot and down the lane
  We patter along in the dust again,
  As light as the tips of the drops of the rain,
    Out to old Aunt Mary's.

We cross the pasture, and through the wood,
Where the old gray snag of the poplar stood
  Where the hammering "red heads" hopped awry,
  And the buzzard "raised" in the clearing sky
  And lolled and circled, as we went by
    Out to old Aunt Mary's.

Or, stayed by the glint of the redbird's wings,
Or the glitter of song that the bluebird sings,
  All hushed we feign to strike strange trails,
  As the "big braves" do in the Indian tales,
  Till again our real quest lags and fails —
    Out to old Aunt Mary's.

And the woodland echoes with yells of mirth
That make old war-whoops of minor worth,
  Where such heroes of war as we — ?
  With bows and arrows of fantasy,
  Chasing each other from tree to tree
    Out to old Aunt Mary's!

And then in the dust of the road again;
And the teams we met, and the countrymen;
  And the long highway, with sunshine spread
  As thick as butter on country bread,
  Our cares behind and our hearts ahead
    Out to old Aunt Mary's.

For only, now, at the road's next bend
To the right we could make out the gable-end
  Of the fine old Huston homestead — not
  Half a mile from the sacred spot
  Where dwelt our Saint in her simple cot —
    Out to old Aunt Mary's.

Far fields, bottom-lands, creek-banks — all,
We ranged at will. — Where the waterfall
  Laughed all day as it slowly poured
  Over the dam by the old mill-ford,
  While the tail-race writhed, and the mill-wheel roared —
    Out to old Aunt Mary's.

For, O my brother so far away,
This is to tell you — she waits to-day
  To welcome us: — Aunt Mary fell

Asleep this morning, whispering, "Tell
The boys to come" . . . And all is well
"Out to old Aunt Mary's."

— JAMES WHITCOMB RILEY.

From "Afterwhiles," Copyright, 1887, 1898, by The Bobbs-Merrill Company.

HELPS TO STUDY

Word Study.

chores — the daily light work of a household or farm.

lolled — reclined lazily.

glint — a flash, a gleam.

feign — to pretend.

quest — search, adventure.

mi′nor — less, smaller.

fan′ta sy — a product of the imagination.

cot — cottage, a small house.

Notes and Questions. — To whom is the poet speaking? What event of his childhood does he recall? What indicates that both brothers were well advanced in years when the poem was written? What are hammering "red heads"? Explain "we feign to strike strange trails." What were "the bow and arrows of fantasy"? How do you know they enjoyed playing "big braves"? How does the poet tell us "the sun was shining brightly"? Read the line that shows they were typical boys. Where did Aunt Mary live? What is meant by "we ranged at will"? Pick out all the lines in this poem which recall experiences of your own. See how clearly you can picture mentally the scenes described by the poet. Describe your picture in words. Have you ever paid a visit like the one described? Tell about it.

For biography see page 59, Book Four.

Millet

AUTUMN

Then came the Autumn all in yellow clad,
As though he joyed in his plenteous store,
Laden with fruits that made him laugh, full glad
  That he had banished hunger. . . .
Upon his head a wreath, that was unroll'd
  With ears of corn of every sort, he bore;
And in his hands a sickle he did hold,
  To reap the ripen'd fruits the which the earth had
    yold.

— EDMUND SPENSER.

Biographical. — Edmund Spenser, born about 1552 in London, where he died in 1599, is known as "the poets' poet" because so many other poets studied his poems and were influenced by them. His most famous poem was "The Faërie Queene," first published in 1590.

A GEORGIA FOXHUNT

For a few days Joe Maxwell forgot all about Mr. Deometari, Mr. Blandford, and Mr. Pruitt. There was distinguished company visiting the editor of *The Countryman* — a young lady from Virginia, Miss Nellie Carter, and her mother, and some young officers at home on furlough. One of these young officers, a kinsman of the editor, brought his pack of foxhounds, and arrangements were made for a grand foxhunt. The plantation seemed to arouse itself to please the visitors. The negroes around the house put on their Sunday clothes and went hurrying about their duties, as if to show themselves at their best.

Joe was very glad when the editor told him that he was to go with the foxhunters and act as master of ceremonies. Foxhunting was a sport of which he was very fond, for it seemed to combine all the elements of health and pleasure in outdoor life. Shortly after Joe went to the plantation the editor of *The Countryman* had brought from Hillsborough a hound puppy, which had been sent him by a Mr. Birdsong. This Mr. Birdsong was a celebrated breeder of foxhounds, having at the time the only pack south of Virginia that could catch a red fox. He was a great admirer of the editor of *The Countryman*, and he sent him the dog as a gift. In his letter Mr. Birdsong wrote that the puppy had been raised under a gourd vine, and so the editor called him Jonah. Joe Maxwell thought that the name was a very good one,

but it turned out that the dog was very much better than his name. The editor gave the dog to Joe, who took great pains in training him. Before Jonah was six months old he had learned to trail a fox skin, and by the time he was a year old hardly a morning passed that Joe did not drag the skin for the pleasure of seeing Jonah trail it. He developed great speed and powers of scent, and he was not more than two years old before he had run down and caught a red fox, unaided and alone. Naturally, Joe was very proud of Jonah, and he was glad of an opportunity to show off the dog's hunting qualities.

In training Jonah, Joe had also unwittingly trained an old fox that made his home on the plantation. The fox came to be well known to every hunter in the county. He was old and tough and sly. He had been pursued so often that if he heard a dog bark in the early morning hours, or a horn blow, he was up and away. The negroes called him "Old Sandy," and this was the name he came to be known by. Jonah when a puppy had trailed Old Sandy many a time, and Joe knew all his tricks and turnings. He decided that it would be well to give the young officer's pack some exercise with this cunning old fox.

All the arrangements for the hunt were made by the editor. Joe Maxwell was to escort Miss Nellie Carter, who, although a Virginian and a good horsewoman, had never ridden across the country after a fox. The lad was to manage so that Miss Carter should see at least as much of the hunt as the young men who were to follow the hounds, while Harbert was to go along to pull down and put up the fences. To Joe this was a new

and comical feature of foxhunting, but the editor said that this would be safer for Miss Carter.

When the morning of the hunt arrived, Joe was ready before any of the guests, as he had intended to be. He wanted to see everything, much to Harbert's amusement. Like all boys, he was excited and enthusiastic, and he was very anxious to see the hunt go off successfully. Finally, when all had had a cup of coffee, they mounted their horses and were ready to go.

"Now, then," said Joe, feeling a little awkward and embarrassed, as he knew that Miss Nellie was looking and listening, "there must be no horn blowing until after the hunt is over. Of course, you can blow if you want to," Joe went on, thinking he had heard one of the young men laugh, "but we won't have much of a hunt. We are going after Old Sandy this morning, and he doesn't like to hear a horn at all. If we can keep the dogs from barking until we get to the field, so much the better."

"You must pay attention," said Miss Carter, as some of the young men were beginning to make sarcastic suggestions. "I want to see a real foxhunt, and I'm sure it will be better to follow Mr. Maxwell's advice."

Joe blushed to hear his name pronounced so sweetly, but in the dim twilight of morning his embarrassment could not be seen.

"Are your dogs all here, sir?" he asked the young man who had brought his hounds. "I have counted seven, and mine makes eight."

"Is yours a rabbit dog?" the young man asked.

"Oh, he's very good for rabbits," replied Joe, irritated by the question.

"Then hadn't we better leave him?" the young man asked, not unkindly. "He might give us a good deal of trouble."

"I'll answer for that," said Joe. "If everybody is ready, we'll go."

"You are to be my escort, Mr. Maxwell," said Miss Carter, taking her place by Joe's side, "and I know I shall be well taken care of."

The cavalcade moved off and for a mile followed the public road. Then it turned into a lane and then into a plantation road that led to what was called the "Turner old field," where for three or four years, and perhaps longer, Old Sandy had made his headquarters. By the time the hunters reached the field, which was a mile in extent, and made up of pasture land overgrown with broom sedge, wild plum trees, and blackberry vines, the dawn had disappeared before the sun. Red and yellow clouds mingled together in the east, and a rosy glow fell across the hills and woods. As they halted for Harbert to take down the fence, Joe stole a glance at his companion, and as she sat with her lips parted and the faint reflection of the rosy sky on her cheeks, he thought he had never seen a prettier picture. Jonah seemed to be of the same opinion, for he stood by the young lady's horse, looking into her face, and whistled wistfully through his nose.

"That is your dog, I know!" said Miss Carter. "Why, he's a perfect beauty! Poor fellow!" she exclaimed, stretching her arm out and flipping her fingers. Jonah gathered himself together, leaped lightly

into the air, and touched her fair hand with his velvet tongue. Joe blushed with delight. "Why, he jumped as high as a man's head!" she cried. "I know he will catch the fox."

"I think we have stolen a march on Old Sandy," said Joe, "and if we have, you'll see a fine race. I hope the other dogs can keep up."

"Ah," said their owner, "they are Maryland dogs."

"My dog," said Joe, proudly, "is a Birdsong."

By this time the hunters had crossed the fence, and the dogs, with the exception of Jonah, were beginning to cast about in the broom sedge and brier patches.

"I hope Jonah isn't lazy," said Miss Carter, watching the dog as he walked in quiet dignity by the side of her horse.

"Oh, no," said Joe, "he isn't lazy; but he never gets in a hurry until the time comes."

The young men tried to tease Joe about Jonah, but the lad only smiled, and Jonah gradually worked away from the horses. It was noticed that he did not hunt as closely as the other dogs, nor did he nose the ground as carefully. He swept the field in ever-widening circles, going in an easy gallop, that was the perfection of grace, and energy, and strength. Presently Harbert cried out:

"Look yonder, Marse Joe! Looky yonder at Jonah!"

All eyes were turned in the direction that Harbert pointed. The dog was hunting where the brown sedge was higher than his head, and he had evidently discovered something, for he would leap into the air, look around, and drop back into the sedge, only to go through the same performance with increasing energy.

"Why don't he give a yelp or two and call the other dogs to help him?" exclaimed one of the young men.

"He's no tattler," said Joe, "and he doesn't need any help. That fox has either just got up or he isn't twenty yards away. Just wait!"

The next moment Jonah gave tongue with thrilling energy, repeated the challenge twice, and was off, topping the fence like a bird. The effect on the other dogs was magical; they rushed to the cry, caught up the red-hot drag, scrambled over the fence as best they could, and went away, followed by the cheer from Harbert that shook the dew from the leaves. The young men were off, too, and Joe had all he could do to hold his horse, which was in the habit of running with the hounds. The sound of the hunt grew fainter as the dogs ran across a stretch of meadowland and through a skirt of woods to the open country beyond; and Joe and Miss Carter, accompanied by Harbert, proceeded leisurely to the brow of a hill near by.

"If that is Old Sandy," said Joe, "he will come across the Bermuda field yonder, turn to the left, and pass us not very far from that dead pine." Joe was very proud of his knowledge.

"Why, we shall see the best of the hunt!" cried Miss Carter, enthusiastically.

They sat on their horses and listened. Sometimes the hounds seemed to be coming nearer, and then they would veer off. Finally, their musical voices melted away in the distance. Joe kept his eyes on the Bermuda field, and so did Harbert, while Miss Carter tapped her horse's mane gently with her riding whip, and seemed to

be enjoying the scene. They waited a long time, and Joe was beginning to grow disheartened, when Harbert suddenly exclaimed:

"Looky yonder, Marse Joe! what dat gwine cross de Bermuda pastur'?"

Across the brow of the hill slipped a tawny shadow — slipped across and disappeared before Miss Carter could see it.

"That's Old Sandy," cried Joe; "now watch for Jonah!"

Presently the hounds could be heard again, coming nearer and nearer. Then a larger and a darker shadow sprang out of the woods and swept across the pasture, moving swiftly and yet with the regularity of machinery. At short intervals a little puff of vapor would rise from this black shadow, and then the clear voice of Jonah would come ringing over the valley. Then the rest of the dogs, a group of shadows, with musical voices, swept across the Bermuda field.

"Oh, how beautiful!" exclaimed Miss Carter, clapping her little hands.

"Wait," said Joe; "don't make any noise. He'll pass here, and go to the fence yonder, and if he isn't scared to death you'll see a pretty trick."

It was a wide circle the fox made after he passed through the Bermuda field. He crossed the little stream that ran through the valley, skirted a pine thicket, ran for a quarter of a mile along a plantation path, and then turned and came down the fallow ground that lay between the creek and the hill where Joe and Miss Carter, with Harbert, had taken their stand. It was a com-

OLD SANDY CAME IN FULL VIEW

paratively level stretch of nearly a half mile. The old corn rows ran lengthwise the field, and down one of these Old Sandy came in full view of those who were waiting to see him pass. He was running rapidly, but not at full speed, and, although his tongue was hanging out, he was not distressed. Reaching the fence two hundred yards away from the spectators, he clambered lightly to the top, sat down on a rail and began to lick his forepaws, stopping occasionally, with one paw suspended in the air, to listen to the dogs. In a moment or two more Jonah entered the field at the head of the valley. Old Sandy, carefully balancing himself on the top rail of the fence, walked it for a hundred yards or more, then gather-

ing himself together sprang into the air and fell in the broom sedge fully twenty feet away from the fence.

"Oh, I hope the dogs won't catch him!" exclaimed Miss Carter. "He surely deserves to escape!"

"He got sense like folks," said Harbert.

"He stayed on the fence too long. Just look at Jonah!" cried Joe.

The hound came down the field like a whirlwind. He was running at least thirty yards to the left of the furrow the fox had followed.

"Why, he isn't following the track of the fox," exclaimed Miss Carter. "I thought hounds trailed foxes by the scent."

"They do," said Joe, "but Jonah doesn't need to follow it as the other dogs do. The dog that runs with his nose to the ground can never catch a red fox."

"Isn't he beautiful!" cried the young lady, as Jonah rushed past, his head up and his sonorous voice making music in the air. He topped the fence some distance above the point where the fox had left it, lost the trail, and made a sweeping circle to the right, increasing his speed as he did so. Still at fault, he circled widely to the left, picked up the drag a quarter of a mile from the fence, and pushed on more eagerly than ever. The rest of the dogs had overrun the track at the point where the fox had turned to enter the field, but they finally found it again, and went by the spectators in fine style, running together very prettily. At the fence they lost the trail, and for some minutes they were casting about. One of the younger dogs wanted to take the back track, but Harbert turned him around, and was about to set the

pack right, when the voice of Jonah was heard again clear and ringing. Old Sandy, finding himself hard pushed, had dropped flat in the grass and allowed the hound to overrun him. Then he doubled, and started back. He gained but little, but he was still game. Jonah whirled in a short circle, and was after the fox almost instantly. Old Sandy seemed to know that this was his last opportunity. With a marvelous burst of speed he plunged through the belated dogs that were hunting for the lost drag, slipped through the fence, and went back by the spectators like a flash. There was a tremendous outburst of music from the dogs as they sighted him, and for one brief moment Joe was afraid that Jonah would be thrown out. The next instant the dog appeared on the fence, and there he sighted the fox. It was then that the courage and speed of Jonah showed themselves. Nothing could have stood up before him. Within a hundred yards he ran into the fox. Realizing his fate, Old Sandy leaped into the air with a squall, and the next moment the powerful jaws of Jonah had closed on him.

By this time the rest of the hunters had come in sight. From a distance they witnessed the catch. They saw the rush that Jonah made; they saw Miss Carter and Joe Maxwell galloping forward; they saw the lad leap from his horse and bend over the fox, around which the dogs were jumping and howling; they saw him rise, with hat in hand, and present something to his fair companion; and then they knew that the young lady would ride home with Old Sandy's brush suspended from her saddle.

— Joel Chandler Harris.

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HELPS TO STUDY

Biographical.—Joel Chandler Harris, better known as "Uncle Remus," was a native of Georgia. He learned the printer's trade, and studied law, but finally became a journalist. His "Stories of Uncle Remus" were published in the *Atlanta Constitution*, and received such a warm welcome that "Nights with Uncle Remus," and "Uncle Remus and his Friends" soon followed. "Brer Rabbit" is the hero of these stories. They are accurate pictures of Southern life and give a perfect imitation of the negro dialect.

Harris died at his home, "Wren's Nest," near Atlanta, in 1908.

Word Study.

fur′lough — leave of absence.

un wit′ting ly — unintentionally.

sar cas′tic — cutting.

em bar′rass ment — confusion of mind.

cav al cade′ — a procession of persons on horseback.

taw′ny — a dull yellowish brown.

com par′a tive ly — not positively or absolutely.

drag — scent, trail.

Notes and Questions. — How is a foxhunt conducted? Why did the editor name his dog "Jonah"? Tell how foxhounds are trained. Why was "Old Sandy" well known to every hunter in the country? What is meant by "Joe was to act as master of ceremonies"? Why did he say "there must be no horn blowing until after the hunt is over"? Tell how the hunt was begun. Describe Jonah's run after "Old Sandy." Why did Miss Carter say he deserved to escape? What did he do when he was "hard pushed"? Tell how Jonah finally captured him.

To the Teacher. — Pupils should test their ability in narration by telling this story with its interesting details. They might tell similar stories out of their own hunting experiences.

OCTOBER IN TENNESSEE

Far, far away, beyond a hazy height,
The turquoise skies are hung in dreamy sleep;
Below, the fields of cotton, fleecy-white,
Are spreading like a mighty flock of sheep.

Now, like Aladdin of the days of old,
October robes the weeds in purple gowns;
He sprinkles all the sterile fields with gold,
And all the rustic trees wear royal crowns.

The straggling fences all are interlaced
With pink and purple morning-glory blooms;
The starry asters glorify the waste,
While grasses stand on guard with pikes and plumes.

Yet still amid the splendor of decay
The chill winds call for blossoms that are dead,
The cricket chirps for sunshine passed away, —
The lovely summer songsters that have fled.

At last, November, like a conqueror, comes
To storm the golden city of his foe;
We hear his rude winds like the roll of drums,
Bringing their desolation and their woe.

The sunset, like a vast vermilion flood,
Splashes its giant glowing waves on high,

The forest flames with blazes red as blood, —
A conflagration sweeping to the sky.

Then all the treasures of that brilliant state
Are gathered in a mighty funeral pyre;
October, like a king resigned to fate,
Dies in the forest with their sunset fire.

— WALTER MALONE.

HELPS TO STUDY

Word Study.

tur′quoise — having a fine, light blue color.

A lad′din — a character in the Arabian Nights that possessed a wonderful lamp and ring which when rubbed together caused spirits to appear who would do his bidding.

in ter laced′ — intertwined.

pike — a long wooden staff tipped with a sharp steel point.

con′quer or — one who gains a victory.

des o la′tion — ruin, gloominess.

ver mil′ion — a brilliant red.

pyre — a pile of material that burns readily, on which the dead are consumed.

re signed′ — not disposed to murmur or resist.

Notes and Questions. — Describe the appearance of a cotton field in October. How are the "weeds robed"? What is "the gold" with which the "sterile fields" are sprinkled? What are "the pikes and plumes of grasses"? What is the "splendor of decay"? For what do the crickets chirp? Where have the songsters gone? How does November come? Describe the sunset at that time. What is said of the death of October? Tell briefly the story of Aladdin.

EXPLORING TOUR

It would be useless, and perhaps tedious, to trace thus day by day, and hour by hour, the history of our young friends. We will now pass over an interval of nearly three weeks, from Saturday, November sixth, when Robert's contest with the panther occurred, to Wednesday, November twenty-fourth, when the affairs of the party took another turn.

The only incident worth relating that occurred during this period, was the construction of a pen for entrapping turkeys. It was simply a covered inclosure, ten or twelve feet square, with a deep trench communicating from the outside to the center. This trench was made deep enough to allow a feeding turkey to walk under the side of the pen, while next the wall, inside, it was bridged over, so that the birds in running along the walls, after having entered, might not fall into the trench, and see their way out. This trap was planned with a knowledge of the fact, that though a turkey looks down when feeding, it never looks down when trying to escape. This is equally true of the quail or southern partridge, and probably of gallinaceous birds in general. By means of this trap the boys took more turkeys than they really needed.

In the meantime Harold's ankle had become so nearly well, that for a week he had not used his crutches; and Sam's bones, though by no means fit to be used, were rapidly knitting.

No one had yet come to the rescue of the party. Often had they gone, singly and together, to the flagstaff, and swept the watery horizon with their glass, but no helper appeared. Robert and Mary had learned by this time to curb their impatience, and to await in calmness the time when they should begin working upon their proposed boat.

From the first day that they found themselves shut up upon the island, Robert and Harold had meditated an exploration of the surrounding country, but had hitherto been prevented by various causes.

The stock of provisions laid in by this time was quite respectable. Five deer had been killed, and their hams were now in the smoke, the company having in the meantime subsisted upon the other parts of the venison, turkeys from the pen, oysters, crabs, and fish. There were also fifty dried fish, two live turkeys, and four fat opossums in the cage made for them, to say nothing of the stores brought from home. Before starting, the boys provided Mary with a large supply of wood for the kitchen and smokehouse, water also, and everything else which they could foresee as needful.

It was broad daylight on the morning of Wednesday, the twenty-fourth day of November, when they set upon their tour. Robert carried the wallet of provisions, consisting of parched corn, smoked venison, and a few hard crackers of Mary's manufacture; in his belt he fastened a flat powderflask filled with water, being the best substitute he could devise for a canteen. Harold carried the blanket rolled up and Frank's hatchet stuck in his belt.

Wishing to ascertain the coastwise dimensions of the island, and also the approaches to it from sea, they directed their course along the hard, smooth beach, occasionally ascending the bluff for the purpose of observing the adjacent country. Their rate of traveling was at first intentionally slow, for they were both pedestrians enough to know that the more slowly a journey is commenced, the more likely it is to be comfortably continued.

At the end of six miles they plainly discerned the southern extremity of the island, lying a mile beyond, and marked by a high bank of sand, thrown up in such profusion as almost to smother a group of dwarfed, ill-formed cedars. Beyond the bluff they saw the river setting eastward from the sea, and bordered on its further side with a dense growth of mangroves. Satisfied with this discovery, and observing that, after proceeding inland for a few miles, the river bent suddenly to the north, they turned their faces eastward, resolved to strike for some point upon the bank. The sterile soil of the beach, and its overhanging bluff, which was varied only by an occasional clump of cedars and a patch of prickly pears, with now and then a tall palmetto, that stood as a gigantic sentry over its pigmy companions, was exchanged, as they receded from the coast, first for a thick undergrowth of low shrubs and a small variety of oak, then for trees still larger, which were often covered with vines, whose pendant branches were loaded with clusters of purple grapes. At about the middle of the island the surface made a sudden ascent, assuming the peculiar character known as "hummock," and which, to un-

practiced eyes, looks like a swamp upon an elevated ridge.

Before leaving the beach the boys had quenched their thirst at a spring of cool, fresh water, found by digging in the sand at high water mark; but now the clusters of grapes were too tempting to be resisted. They seated themselves under a heavy canopy of vines, and ate their frugal dinner in sight of a luscious dessert, hanging all around and above them.

Resuming their journey to the east, they proceeded about a mile farther, when Mum, who had trotted along with quite a philosophic air, as if knowing that his masters were engaged in something else than hunting, was seen to dash forward a few steps, smell here and there intently, and then with a growl of warning, come beside his masters for protection.

"That is a panther, I'll warrant," said Robert. "At least Mum acted exactly in that way the other day when I put him upon the panther's track. Had we not better avoid it?"

"By no means," replied Harold. "Let us see what the creature is. We are on an exploring tour, you know, and that includes animals as well as land and trees. A panther is a cowardly animal, unless it has very greatly the advantage; and if you could conquer one with a single load of duck shot when alone and surprised, surely we two can manage another."

"Yes," said Robert, "but, I assure you, my success was more from accident than skill; and I would rather not try it again. However, it will do no harm to push on cautiously, and see what sort of neighbors we have."

They patted their dog, and gave him a word of encouragement. The brave fellow looked up, as if to remonstrate against the dangerous undertaking, but, on their persisting, went cheerfully upon the trail. He took good care, however, to move very slowly, and to keep but little in advance of the guns. The two boys walked abreast, keeping their pieces ready for instant use, and proceeded thus for about fifteen minutes, when their dog came to a sudden halt, bristled from head to tail, and with a fierce growl showed his teeth; while from a thicket, not ten paces distant, there issued a deep grumbling sound, expressive of defiance and deadly hate. Harold stooped quickly behind the dog, and saw an enormous she-bear, accompanied by two cubs that were running beyond her, while she turned to keep the pursuers at bay.

"We must be cautious, Robert," said Harold; "a bear with cubs is not to be trifled with. We must either let her alone, or follow at a respectful distance. What shall we do? She has a den somewhere near at hand, and no doubt is making for it."

Robert was not very anxious for an acquaintance with so rough a neighbor, but, before the fearless eye of his cousin, every feeling of trepidation subsided. The two followed, governing themselves by the cautious movements of their dog, and able to catch only a casual glimpse of the bear and her cubs, until they came within thirty paces of a tulip tree, five feet in diameter, with a hollow base, into which opened a hole large enough to admit the fugitives.

"There, now, is the country residence of Madame

Bruin," said Robert, stopping at a distance to reconnoiter the premises. "Shall we knock at her door, and ask how the family are?"

"I think not," replied Harold; "the old lady is rather cross sometimes, and I suspect from the tones of her voice she is not in the sweetest humor at present. Take care, Robert, she is coming! Climb that sapling! Quick! Quick!"

The boys each clambered into a small tree, and as soon as they were well established, Harold remarked: "Now let her come, if she loves shot. A bear cannot climb a sapling. Her arms are too stiff to grasp it; she needs a tree large enough to fill her hug."

But Madame Bruin, like the rest of her kin, was a peaceable old lady, not at all disposed to trouble those that let her alone, and on the present occasion she had two sweet little cherubs, whose comfort depended upon her safety; so she contented herself with going simply to her front door, and requesting her impertinent visitors to leave the premises. This request was couched in language which, though not English, nor remarkably polite, was perfectly intelligible.

"I suppose we shall have to go now," said Harold; "it will not be civil to keep prying into the old lady's chamber. But when Sam can join us, we will come prepared to make bacon of her and pets of her cubs."

They called off the dog, patted him in praise of his well-doing, and then retreated, blazing the trees all the way from the tulip tree to the river.

Nothing more of interest occurred that day. On leaving the river, the explorers turned into the woods

and kept a northerly course parallel with the shore. About sunset they stopped beside a large log of resinous pine, and here they determined to make their encampment that night, intending to set the log on fire. Around it they cleared an irregular ring, which they fired on the inner side, thus providing a place for sleeping free from insects, and from which fire could not escape into the surrounding forest. Next, they made themselves a tent of bushes, by bending down one sapling, fastening its top to the stem of another, and then piling against it a good supply of evergreens, so inclined as to allow a narrow space beneath. A neighboring tree supplied them with moss for a superb woodland mattress, and while Robert was preparing that, Harold collected a quantity of pine knots, to be reserved in case their fire should decline.

By the time these preparations were completed darkness closed around. Jupiter, at that time the evening star, glowed brightly from the western sky, while Orion, with his brilliant belt, gleamed cheerily from the east. The boys sat from time to time luxuriating in their rest, listening to the musical roar of their fire and watching the red glare which lighted up the somber arches of the forest; then uniting in their simple repast and giving Mum his share, they lay down to sleep, having committed themselves to the care of Him who slumbers not, and who is as near his trustful worshipers in the forest as in the city.

There is a wild pleasure in sleeping in the deep dark woods. The sense of solitude, the consciousness of exposure, the eternal rustle of the leafy canopy, or else

its perfect stillness, broken only by the stealthy tread of some beast of night, or the melancholy hooting of a restless owl, give a variety which is not familiar to civilized men, but which, being of a somber character, requires for its enjoyment a bold heart and a self-relying spirit.

The boys retired to rest soon after supper, and tried to sleep; but the novelty of their circumstances kept them awake. They rose from their mossy couch, sat by the fire, and talked of their past history and of their future prospects.

At last their nervous excitement passed away. They retired once more to bed, having their guns within reach, and Mum lying at their feet. The roar of the blaze and crackle of the wood composed them to sleep; and when they next awoke, daylight had spread far over the heavens, and the stars had faded from sight. They sprang lightly to their feet, and before the sun appeared were once more on their way northward, along the river.

Their march was now slow and toilsome. In the interior a hummock of rich land, covered with lofty trees, matted with vines, and feathered with tall grass, impeded their progress; while near the river baygalls, stretching from the water's edge to the hummocks, fringed with gall berries, myrtles, and saw palmettoes, and crowded internally with bays, tupeloes, and majestic cypresses (whose singular looking "knees" peeped above the mud and water like a wilderness of comical stumps), forced them to the interior. Their average rate of travel was scarcely a mile to the hour.

Several herds of deer darted before them as they passed,

and once, while in the hummock, where the growth was very rank, the creatures were almost within arm's length.

About noon the travelers emerged into an open space, which Harold pronounced to be a small prairie. In the act of stepping into it, he grasped the arm of his cousin, and drew him behind a bush, with a hurried, "Back! Back! Look yonder!"

Robert gave one glance, and stepped back into concealment as quickly as if twenty panthers were guarding the prairie. There stood an Indian hut.

The boys gazed at each other in dismay; their hearts beat hard, and their breath grew short. Were there Indians then upon the island, and so near them? What might not have happened to Mary and Frank? But a close scrutiny from their bushy cover enabled them to breathe freely. There was a hut, but it was evidently untenanted; grass grew rank about the doorway, and the roof was falling to decay. The dwelling had been deserted for years.

The boys went boldly to it, and entered. Tufts of grass were growing in the mud plaster of the walls. In the center was a grave, banked with great neatness and protected by a beautifully arched pen of slender poles. At the door was a hominy mortar, made of a cypress block, slightly dished, and having a narrow, funnel-shapped cavity in its center. Upon it, with one end resting in a crack of the wall, lay the pestle, shaped like a maul, and bearing the marks of use upon that end which white men would ordinarily regard as the handle. Overhanging the roof were three peach trees, and around it the ground was covered with a profusion of gourds of

all sizes, from such as would hold a gill to those that would contain several gallons. Beyond the house, and on the edge of the prairie, was a dense growth of wild plum trees.

"This place," said Harold, musing, "must have belonged to some old chief. The common people do not live so comfortably. It is likely that he continued here after all others of his tribe had gone; and when he died, his children buried him, and they also went away. Poor fellow! here he lies. He owned a beautiful island, and we are his heirs."

It was now twelve o'clock, and they began to feel the demands of appetite.

Finding a beautiful spring under a tupelo tree, and a grove of wild orange trees loaded with fruit, they dined under the shade of the orange trees, and afterwards plucked a fragrant dessert from the loaded branches. Then they filled their pockets with the different varieties and started homewards.

It was scarcely a mile from these orange trees to the first that they had discovered; and thence only three miles home. They reached the tent late in the afternoon.

From "The Young Marooners." — F. R. GOULDING.

HELPS TO STUDY

Word Study.

gal li na′ceous — an order of birds including the barnyard fowl, turkeys, quails, etc.

sub sist′ed — lived.

can teen′ — a flask used by soldiers for carrying water.

as cer tain′ — to learn for a certainty by trial or examination.

ad ja′cent — lying near, bordering.

pe des′tri an — foot traveler.
man′grove — a tropical evergreen tree.
pig′my — a dwarf.
re ced′ed — moved back or away.
fru′gal — scanty.
phil o soph′ ic — wise.
trep i da′tion — fright.
cas′u al — happening by chance.
fu′gi tive — a person who flees from danger.
re con noi′ter — to examine with the eye.
cher′ub — a beautiful child.
lux u′ri at ing — taking great delight in.
im ped′ed — obstructed, hindered.
tu′pe lo — a North American tree having red, acid berries, and red, cross-grained wood.

Notes and Questions.—Describe a turkey trap. Could you make a quail trap on the same principles? How do you think this party got on the island? How did they expect to get away from it? What supplies did they have on hand? Why did Robert and Harold make an exploring tour? Tell how they were equipped for it. What did they ascertain? Why did Harold call the panther a cowardly animal? What preparations are necessary for camping in the forest at night? How did the boys account for the Indian hut they discovered? What was the "fragrant dessert" they plucked from the loaded branches of a tree? Run through the story and see if you can put simpler and more familiar words for some of the unfamiliar ones like tedious, gallinaceous, meditated, exploration, subsisted, wallet, pedestrians, discerned, sterile, etc. What did the boys take with them on their exploring trip? Describe the experience with the bear. Make a list of the kinds of trees you find in the story. Which do you know?

F. E. Mitchel

THE FRESH, DARK ACRES ASK THE SOWER'S HAND

THE SONG OF THE SOWER

The maples redden in the sun;
  In autumn gold the beeches stand;
Rest, faithful plow! thy work is done
  Upon the teeming land.
Bordered with trees whose gay leaves fly
On every breath that sweeps the sky,
The fresh dark acres furrowed lie,
  And ask the sower's hand.

Loose the tired steer, and let him go
To pasture where the gentians blow;
And we who till the grateful ground,
Fling we the golden shower around.

Fling wide the generous grain; we fling
O'er the dark mold the green of spring.
For thick the emerald blades shall grow
When first the March winds melt the snow,
And to the sleeping flowers below
  The early bluebirds sing.

Fling wide the grain; we give the fields
  The ears that nod in summer glade,
The shining stems that summer gilds,
  The harvest that o'erflows the vale,
And swells, an amber sea, between
The full-leaved woods — its shores of green.

Hark! from the murmuring clods I hear
Glad voices of the coming year, —
The song of him who binds the grain,
The shout of those that load the wain,
And from the distant grange there comes
  The clatter of the thresher's flail,
And steadily the millstone hums
  Down in the willowy vale.

And strew with free and joyous sweep
  The seed upon the expecting soil,
For hence the plenteous year shall heap
  The garners of the men who toil.
Strew the bright seed for those who tear
The matted sward with spade and share;
And those whose sounding axes gleam
Beside the lonely forest stream
  Till its broad banks lie bare;

Sprinkle the furrow's even trace
  For those whose toiling hands uprear
The roof trees of our swarming race,
  By grove and plain, by stream and mere;
Who forth, from crowded city, lead
  The lengthening street, and overlay
Green orchard plot and grassy mead
  With pavement of the murmuring way.

Cast with full hands, the harvest cast,
For the brave men that climb the mast,
When to the billow and the blast
  It swings and stoops, with fearful strain,

And bind the fluttering mainsail fast,
  Till the tossed bark shall sit again
  Safe as a sea bird on the main.

Fling wide the grain for those who throw
The clanking shuttle to and fro,
In the long row of humming rooms,
  And into ponderous masses wind
The web that, from a thousand looms,
  Comes forth to clothe mankind.

Strew, with free sweep, the grain for them,
  By whom the busy thread
Along the garment's even hem
  And winding seam is led;
A pallid sisterhood, that keep
  The lonely lamp alight,
In strife with weariness and sleep,
  Beyond the middle night.
Large part be theirs in what the year
Shall ripen for the reaper here.

Scatter the wheat for shipwrecked men,
Who, hunger-worn, rejoice again
  In the sweet safety of the shore,
And wanderers, lost in woodlands drear,
Whose pulses bound with joy to hear
  The herd's light bell once more.
  Freely the golden spray be shed
For him whose heart, when night comes down
On the close alleys of the town,
  Is faint for lack of bread.

In chill roof-chambers, bleak and bare,
Or the damp cellar's stifling air,
She who now sees, in mute despair,
  Her children pine for food,
Shall feel the dews of gladness start
To lids long tearless, and shall part
The sweet loaf with a grateful heart,
  Among her thin, pale brood.

Dear, kindly Earth, whose breast we till!
Oh, for thy famished children, fill,
  Where'er the sower walks,
Fill the rich ears that shade the mold
With grain for grain, a hundredfold,
  To bend the sturdy stalks!

  Brethren, the sower's task is done.
The seed is in its winter bed.
Now let the dark brown mold be spread,
  To hide it from the sun,
And leave it to the kindly care
Of the still earth and brooding air,
As when the mother, from her breast,
Lays the hushed babe apart to rest,
And shades its eyes, and waits to see
How sweet its waking smile will be.

  The tempest now may smite, the sleet
  All night on the drowned furrow beat,
And winds that, from the cloudy hold,
Of winter breathe the bitter cold,

Stiffen to stone the mellow mold,
  Yet, safe shall lie the wheat;
Till, out of heaven's unmeasured blue,
  Shall walk again the genial year,
To wake with warmth and nurse with dew
  The germs we lay to slumber here.

Oh, blessed harvest yet to be!
  Abide thou with the Love that keeps,
In its warm bosom, tenderly,
  The Life which wakes and that which sleeps.
The Love that leads the willing spheres
Along the unending track of years,
And watches o'er the sparrow's nest,
Shall brood above thy winter rest,
And raise thee from the dust, to hold
  Light whisperings with the winds of May,
And fill thy spikes with living gold,
  From summer's yellow ray.

Then, as thy garners give thee forth,
  On what glad errands shalt thou go,
Wherever o'er the waiting earth,
  Roads wind, and rivers flow!
The ancient East shall welcome thee
To mighty marts beyond the sea,
And they who dwell where palm groves sound
To summer winds the whole year round,
Shall watch, in gladness, from the shore,
The sails that bring thy glistening store.

— William Cullen Bryant.

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HELPS TO STUDY

Word Study.

teem′ing — rich and fertile.
em′er ald — a rich green color.
gilds — turns golden.
am′ber — a clear bright yellow.
wain — wagon.
grange — barn.
share — plowshare.
mere — a lake or pool.
main — the sea.
pon′der ous — heavy.
pal′lid — pale.
ge′ni al — gentle, kind.

Notes and Questions. — What time of the year is indicated by the first stanza? After reading carefully the first five stanzas, describe the methods of plowing, sowing, harvesting, threshing, and grinding which were familiar to the poet. Describe the methods of doing these things now in a wheat-growing section. Stanzas six to twelve describe people who depend for food on the harvest of the sower. Describe the work of each of these groups of people. What seed was the sower planting? What is meant by the word "generous" in the third stanza? What is the appearance of a ripe wheat field? When you are working in the corn or cotton field, do you ever think of the millions of people all over the earth who are looking to you for food and clothes? Describe what happens to the seed and the plant between the fall sowing and the summer harvest. Does it dignify the work of the farm to look upon it as the farmers' way of serving mankind?

RUTH

She stood breast high among the corn,
Clasped by the golden light of morn,
Like the sweetheart of the sun,
Who many a glowing kiss had won.

On her cheek an autumn flush,
Deeply ripened; — such a blush
In the midst of brown was born,
Like red poppies grown with corn.

Round her eyes her tresses fell,
Which were blackest none could tell,
But long lashes veiled a light,
That had else been all too bright.

And her hat, with shady brim,
Made her tressy forehead dim; —
Thus she stood amid the stooks,
Praising God with sweetest looks.

Sure, I said, Heav'n did not mean,
Where I reap thou shouldst but glean;
Lay thy sheaf adown and come,
Share my harvest and my home.

— THOMAS HOOD.

Biographical. — Thomas Hood is a well-known English poet. Among the most familiar, and perhaps the finest, of his poems are "The Song of the Shirt" and "The Bridge of Sighs."

He was born in London in 1799 and died in 1845.

LIVE STOCK ON THE FARM

Did you ever wonder why the farmer keeps live stock on his farm? You will say at once that he keeps horses and mules to ride, to pull plows and wagons, and to do other heavy work; that he keeps oxen also for heavy hauling; that he keeps cows for their milk and butter and beef; sheep, for wool and mutton; and hogs and goats, for meat. But are there not other good and important reasons why the wide-awake farmer keeps live stock?

The business of live stock on the farm is not only to do the heavy work and to produce meat, but to be sold as the animals may be ready for market to bring in money for expenses, and to furnish fertilizer for the soil.

Every farmer should make an effort to raise all of the meat that he needs. All of the milk and butter that

the family needs should be produced on the farm. The farmer should also, if possible, raise his horses and mules.

In some cases we find farmers going into live stock farming exclusively, raising only live stock for the market, while others raise cotton, corn, and other crops. This may be a good plan where the farm is unusually well suited to this kind of farming, and where the farmer

A PURE BRED JERSEY

has had special training for it. The best plan, however, is to combine live stock farming with cotton farming and other lines of crop raising.

It is the policy of many planters in the South to give all of their time and effort to the raising of cotton, expecting to buy corn, hay, work stock, and all other supplies necessary to run the farm, from the proceeds of this one crop. This is a very unwise plan. Suppose something should happen to the cotton crop, or that the price should go down very low in the fall? If the farmer had raised

nothing but cotton, what would happen to him? The wisest and most successful farmers raise all the meat, milk, butter, vegetables, corn, and hay that they need for home use and for stock feed, and then raise cotton to sell and bring in money.

By having a few pastures on the farm, and by raising plenty of corn, hay, and other forage crops, the farmer can raise a great deal of live stock each year. The stock can be sold and in this way the farmer can have some money coming in during the year for farm expenses. Then, at the end of the year, the cotton can be sold and the money deposited in the bank to be used as needed. If the price should be very low at the time of harvesting, the farmer could hold his cotton until he could sell it for a reasonable price, instead of sacrificing it to pay for farm supplies, as often happens under the one crop system.

Enough live stock should be raised and kept on every farm to eat all of the food crops produced that are not intended for market.

In most cases, it is far better to sell butter than to sell the hay that made the butter; better to sell a pig than to sell the corn that fattened the pig; and the same is true with most food crops on the Southern farm.

The best way to get good crops from the soil from year to year, and not to wear out the soil is to keep live stock, feed the food crops to the live stock, take good care of all the manure produced, and return it to the land. The one crop system — that is, planting the same crop on the same land from year to year, and depending entirely on that one crop — is a great mistake. It will impoverish both the farmer and his soil.

HELPS TO STUDY

Word Study.

ex clu′sive ly — shutting out other things.
pol′i cy — plans, purpose.
de pos′it ed — placed.
sac′ri fic ing — selling at a price less than actual value.
im pov′er ish — make poor.

Notes and Questions. — Name in order of importance the reasons for keeping live stock on the farm. Make a census of the live stock on the farms of the school district. Are the cattle, hogs, and chickens pure bred or scrub? Do the farmers all produce milk and butter for the home? How many raise their own meat? Do they sell live stock or live stock products? Do they depend on commercial fertilizers to keep up the fertility of the farm?

To the Teacher. — Take the pupils on an excursion to any near-by farm where there are some especially fine stock and have the owner tell the pupils about them.

PURE BRED HEREFORD

THE HORSE

I

History of his Development

I am sure that every boy and girl is fond of reading history and especially that part of history which tells us what man has been doing through all the countless ages of the earth. The history of the development of the horse is full of interest because the horse is one of the most serviceable animals to mankind.

Of course the horse cannot write or talk, so he has not been able to record his own history for us. But his record has been kept, however. It often happens that when animals die their bones do not decay for ages. Modern scholars have given much study to these fossil remains of animals, and have been enabled to learn much of natural history through them. And it is by the study of the bones of the horse that we have been enabled to learn the history of his development — to learn what kind of animal he once was, and how he has been gradually developed to his present state of beauty and usefulness.

The great scientists, who have given their whole lives to the study of the earth and the history of its creatures, tell us that in one period of its history the earth was very wet and soft. At this time, they say, the horse was a very small animal, and his feet had toes to enable

him to walk through the wet earth. On the front feet there were four toes, and the splint-like appearance of a fifth toe; on the hind feet there were three toes and the splint-like appearance of a fourth toe.

The middle toe was much the largest and strongest, and, in succeeding generations of horses this middle toe gradually became larger and stronger and the other toes smaller and weaker, until, finally, all of the smaller toes disappeared altogether, and the large toe in the center of the foot became a solid hoof as we see it to-day. You must not forget that it took long ages and many, many generations of horses to bring about this radical change.

It has not been possible for us to find anything that would indicate what was the color of the horse in early times, but it is supposed to have been the color that we now call "dun." The indications are that darker stripes ran around the body of the primitive horse, giving the animal the appearance of the zebra.

In early times the horse's head was small, in keeping with the small body, and the teeth were small and short. As the animal developed and became larger, the head became larger in proportion to the size of the body. The teeth also became larger and much longer.

Fossil remains of the ancient horse have been found in North America, South America, Asia, Europe, and, in fact, in almost all parts of the world.

Man became familiar with the horse and associated with him in what is called the "Stone Implement Age," or the time when man carved out of stone the implements with which he worked. Perhaps at first the horse was hunted by man and his flesh used for food. Later,

however, the creature was tamed and used for driving to chariots and then for riding.

Wild horses are found, to-day, in Tartary. In the western part of our own country we still have herds of the mustang pony, but it is claimed that these have come from horses brought over to this country by the

SHETLAND PONY

Spaniards years ago. In the rough hills of the Shetland Islands, north of Scotland, we can still find Shetland ponies running wild.

How could we plow our soil, haul our crops to market, and enjoy riding and driving, if it were not for the horse?

Do you love the horse? I think that every boy and girl ought to love the horse for what he has done for us, and for what he is still doing. But every one should own a good horse in order to know how really noble the

animal is, and how, through his long and close association with man, he has come to be his sympathetic friend. History is full of incidents where horses have displayed almost human intelligence, and where they have shown a loyalty to the ones they loved that is worthy of imitation.

Be patient, kind, and gentle to your horse; feed and care for him well, and he will gladly give you his best service in turn. I believe that there is something good in every human being that loves a horse and cares for him tenderly.

II

Breeds of Horses

For many years man has used his knowledge and skill in breeding special kinds of horses for special kinds of work.

Horses raised for riding and driving are bred for rapid motion, and not for heavy pulling. Coach or carriage horses are also active, but are not so light and active as those raised for riding and driving. The draft horse, an especial type, is bred for pulling heavy loads, and is large and stocky.

One of the most interesting and beautiful types of horse is the Arabian — so called from the fact that the breed originated in Arabia, a country lying east of the Red Sea. Horses of this type, however, have also been found in northern Africa, Persia, and Turkey. The exact origin of the Arabian horse is not fully known. We find that Arabian horses were brought to England for the purpose of improving the English stock, three or four

hundred years ago, and that down to the present time it has been possible to trace the influence of this famous breed of horses through all of the improved strains.

In his native home, the Arabian horse was bred in very early times to carry heavy loads and to travel long dis-

CHAMPION PERCHERON MARE

tances. This accounts for his being well developed and well muscled. His body is short, and he is usually fourteen to fourteen and one-half hands high. His head is held high and his ears are small. In color, he may be either white, bay, or chestnut.

Most English horses, up to the beginning of the reign of James the First, in 1603, were bred for pulling heavy drafts or for carrying great burdens. About this time, however, people became interested in race horses. With the decline of the practices of chivalry, the tournament lost in popularity as a public amusement, and men began to search for some other form of out-of-door sport in which men and horses could take part together. Racing came into favor, and the race course supplanted, in a way, the lists of the tourney. This caused a demand for fast horses, and led man to begin the breeding of certain horses especially for speed. As a result we now have the "thoroughbred."

There were three famous horses brought into England that had great influence in founding the thoroughbred strain. These horses were "Byerly Turk," imported into England in 1689; "Darley Arabian," imported in 1706; and "Godolphin Barb," imported in 1724. The thoroughbred horse was brought to America early in the eighteenth century.

The breed called thoroughbred is descended from these horses and from the heavier English stock.

The thoroughbred horse is rather lean, and has a small, intelligent head. The eyes are prominent, and the ears of medium size. The neck is long, and the shoulders slope back like those of all fast horses. The chest is narrow but very deep. The height of this horse may be from fourteen and one-half to sixteen and one-half hands. The color is usually brown or bay.

As has been said, thoroughbreds are raised especially for speed. They are the fastest horses in the world. The

best record known is a mile in one minute, thirty-five and one-half seconds.

The American saddle horse is a special type that has been developed in the southern part of the United States.

AN AMERICAN SADDLE HORSE

He is a beautiful animal, with intelligent, lean head. Every movement about him indicates vigor and activity. This breed averages fifteen or more hands in height and is of various colors.

Years ago, before we had any railroads, people rode

horseback a great deal. But all of the horses up to that time had been bred either for pulling heavy loads or for speed. The new necessity called for a new breed of horses.

The people of Kentucky, Tennessee, Virginia, and Missouri enjoyed riding horseback, and had a great deal of riding to do on account of the poor roads, so that they began to select for saddle horses those animals which had the easiest and the best gaits. They kept up this habit of selecting the best gaited animals through several generations until we finally have the far-famed American saddle horse. The saddle horse has many gaits. He can walk, trot, canter, rack, or fox trot. Many good saddle horses have other gaits which may be combinations or modifications of the above.

The history of the American trotter extends over several centuries. We find that there were horses of this strain around Yorkshire and Norfolk, England, as far back as two centuries ago; and that the breed was known in America as early as colonial times.

These animals trace all of their history back to two great ancestors, one known as "Messenger," a thoroughbred, and the other, "Bellfounder," of Arabian stock. After Messenger was brought to America, he spent most of his life in New York, Pennsylvania, and New Jersey. Bellfounder was brought direct to New York, where he spent the remainder of his life. American trotters vary greatly in appearance, but are usually lean, muscular, and very intelligent.

Pacing horses have the same origin and history as the American trotter, and are the same in every respect except in gait. Perhaps the most famous one of this

breed in the matter of speed was "Dan Patch," who held the world's pacing record of one minute, fifty-five seconds.

Shetland ponies were first found wild in the rocky Shetland Islands about two hundred miles north of Scotland. Their early history — where they came from and the origin of their parents — is uncertain. In general appearance Shetland ponies are very much like

AN AMERICAN TROTTER

draft horses, except, of course, that they are very much smaller. They are usually from thirty-six to forty-four inches tall, though some of them are not over thirty inches. In color, these little animals vary a great deal, some being bay, brown, roan, chestnut, or even spotted. Shetland ponies have been brought to America, and a great many of them are now being raised here. They are used for light driving, especially by children.

HELPS TO STUDY

Word Study.

ser′vice a ble — giving service.

fos′sil — remains, bones of ancient animals dug from the earth.

splint′-like — like a splinter.

rad′i cal — extreme.

dun — of a grayish brown color.

prim′i tive — belonging to early times.

im′ple ments — tools.

chiv′al ry — the practices of an order of knights, or mounted warriors, of the middle ages, now meaning gallantry.

tour′na ment — contest with lances by mounted men.

Notes and Questions. — Tell the story of the evolution of the horse. Name and describe the breeds of horses which are common in America. Which are represented in your community? Describe in detail the care and feeding necessary to keep a horse in perfect condition.

The horse — he is noble, and valiant, and strong,
And looks all on fire as he gallops along;
Or patient and sturdy, he tugs at the load,
At the blow of the whip, or the prick of the goad,
When he lugs at the wagon, and pants up the hill,
With the all of his strength, and the all of his will.
And at the last gasp will he tug and strain on,
Till strength, and not ardor, is perished and gone;
Devoted to man, thus he gives up his breath,
And noble in life — he is noble in death!

— PETER PARLEY.

BLACK BEAUTY

I

The first place I can well remember was a large, pleasant meadow with a pond of clear water in it. Some shady trees leaned over it, and rushes and water lilies grew at the deep end. Over the hedge at one side we looked into a plowed field, and on the other we looked over a gate at our master's house, which stood by the road-side. At the top of the meadow was a grove of fir trees, and at the bottom a running brook overhung by a steep bank.

In the daytime I ran by my mother's side, and at night I lay down close by her. When it was hot, we used to stand by the pond in the shade of the trees, and when it was cold, we had a nice warm shed near the grove.

As soon as I was old enough to eat grass my mother used to go out to work in the daytime, and come back in the evening.

There were six young colts in the meadow besides me; they were older than I; some were nearly as large as grown-up horses. I used to run about with them, and have great fun; we used to gallop all together round and round the field as hard as we could go. Sometimes we had rather rough play, for they would frequently bite and kick as well as gallop.

One day when there was a good deal of kicking, my mother whinnied to me to come to her, and said:

"I wish you to pay attention to what I am going to say to you. The colts who live here are very good colts, but they are cart-horse colts, and of course they have not learned manners. You have been well bred and well born; your father has a great name in these parts, and your grandfather won a cup two years at the Newmarket races; your grandmother had the sweetest temper of any horse I ever knew, and I think you have never seen me bite or kick. I hope you will grow up gentle and good, and never learn bad ways; do your work with a good will, lift your feet up well when you trot, and never bite or kick, even in play."

I have never forgotten my mother's advice. I knew she was a wise old horse, and our master thought a great deal of her.

Our master was a good kind man. He gave us good

food, good lodging, and kind words. He spoke as gently to us as he did to his little children. We were all fond of him, and my mother loved him very much. When she saw him at the gate, she would neigh with joy and trot up to him.

He would pat and stroke her and say, "Well, old Pet, how is your little Darkie?" I was a dull black, so they

HE WOULD HAVE WHAT HE CALLED FUN WITH THE COLTS

called me Darkie. Then he would give me a piece of bread, which was very good, and sometimes he brought a carrot for my mother. All the horses would come to him, but I think we were his favorites.

There was a plowboy Dick, who sometimes came into our field to pluck blackberries from the hedge. When he had eaten all he wanted, he would have what he called "fun" with the colts, throwing stones and sticks at them

to make them gallop. We did not much mind him, for we could gallop off; but sometimes a stone would hit and hurt us.

One day he was at this game and did not know that the master was in the next field; but he was there, watching what was going on. Over the hedge he jumped, and catching Dick by the arm he gave him such a box on the ear as made him roar with pain and surprise. As soon as we saw the master, we trotted up nearer to see what went on.

"Bad boy!" he said, "bad boy! to chase the colts. This is not the first time, nor the second, but it shall be the last. There — take your money and go home; I shall not want you on my farm again." So we never saw Dick any more. Old Daniel, the man who looked after the horses, was as gentle as our master, so we were well off.

I was now beginning to grow handsome; my coat had become fine and soft, and was a bright black. I had one white foot, and a pretty white star on my forehead. I was thought very handsome. My master would not sell me until I was four years old; he said lads ought not to work like men, and colts ought not to work like horses till they were quite grown up.

When I was four years old, Squire Gordon came to look at me. He examined my eyes, my mouth, and my legs, and then I had to walk and trot and gallop before him. He seemed to like me, and said, "When he has been well broken in, he will do very well." My master said he would break me in himself as he would not like me to be frightened or hurt; and he lost no time about it, for the next day he began.

Every one may not know what breaking in is; therefore, I will describe it. It means to teach a horse to wear a saddle and bridle, and to carry on his back, a man, woman, or child; to go just the way they wish, and to go quietly. Besides this, he has to learn to wear a collar, a crupper, and a breeching, and to stand still whilst they are put on; then to have a cart or a carriage fixed behind, so that he cannot walk or trot without dragging it after him; and he must go fast or slow, just as his driver wishes.

He must never start at what he sees, nor speak to other horses, nor bite, nor kick, nor have any will of his own; but always do his master's will even though he may be very tired or hungry. But the worst of all is when his harness is once on, he may neither jump for joy, nor lie down for weariness. So you see this breaking in is a great thing.

II

I had of course long been used to a halter and a head-stall, and to being led about in the fields and lanes, but now I was to have a bit and bridle. My master gave me some oats as usual, and after a good deal of coaxing he got the bit into my mouth and the bridle fixed. One who has never had a bit in his mouth cannot think how bad it feels; a great piece of cold, hard steel as thick as a man's finger to be pushed into the mouth between the teeth and over the tongue, with the ends coming out of the corner of the mouth and held fast there by straps over the head, under the throat, round the nose, and under the chin. In no way in the world can you get rid of it.

It is very bad! yes, very bad! At least, I thought so,

but I knew my mother always wore one when she went out, and all horses did when they were grown up; and so, what with the nice oats and what with my master's pats, kind words, and gentle ways, I got to wear my bit and bridle.

Next came the saddle, but that was not half so bad. My master put it on my back very gently, whilst old Daniel held my head; he then made the girths fast under my body, patting and talking to me all the time; then I had a few oats, then a little leading about, and this he did every day until I began to look for the oats and the saddle. At length one morning my master got on my back and rode me about the meadow on the soft grass. It certainly did feel queer; but I must say I felt rather proud to carry my master, and as he continued to ride me a little every day, I soon became accustomed to it.

The next unpleasant business was putting on the iron shoes; that, too, was very hard at first. My master went with me to the smith's forge to see that I was not hurt or frightened. The blacksmith took my feet in his hand one after the other and cut away some of the hoof. It did not pain me, so I stood still on three legs until he had done them all. Then he took a piece of iron the shape of my foot and clapped it on, and drove some nails through the shoe quite into my hoof so that the shoe was firmly on. My feet felt very stiff and heavy but in time I got used to the shoes.

And now, having got so far, my master went on to break me to harness, and there were more new things to wear. In time, however, I got used to everything and could do my work as well as my mother.

I must not forget to mention one part of my training, which I have always considered a great advantage. My master sent me for a fortnight to a neighboring farmer's, where there was a meadow which was skirted on one side by the railway. Here were some sheep and cows, and I was turned in amongst them.

I shall never forget the first train that ran by. I was feeding quietly beside the pales which separated the meadow from the railway, when I heard a strange sound at a distance, and before I knew whence it came, — with a rush and a clatter and a puffing out of smoke, — a long black train of something flew by and was gone, almost before I could draw my breath. I turned and galloped to the farther side of the meadow as fast as I could go, and there I stood snorting with astonishment and fear. In the course of the day many other trains went by, some more slowly; these drew up at the stations close by, and sometimes made an awful shriek and groan before they stopped. I thought it very dreadful, but the cows went on eating very quietly, and hardly raised their heads as the black, frightful thing came puffing and grinding past.

For the first few days I could not feed in peace; but as I found that this terrible creature never came into the field, or did me any harm, I began to disregard it, and very soon, I cared as little about the passing of the train as the cows and sheep did.

Since then I have seen many horses much alarmed and restive at the sight or sound of a steam engine; but thanks to my good master's care, I am as fearless at a railway station as in my own stable.

Now if any one wants to break in a young horse well, that is the way.

My master often drove me in double harness with my mother, because she was steady and could teach me how to go better than a strange horse. She told me the better I behaved, the better I should be treated, and that it was wisest always to do my best to please my master. "But," said she, "there are a great many kinds of men; there are good, thoughtful men like our master, that any horse may be proud to serve; and there are bad, cruel men who never ought to have horse or dog to call their own. Besides, there are a great many foolish men, vain, ignorant, and careless, who never trouble themselves to think; these spoil more horses than all the others, just for want of sense. They don't mean it, but they do it for all that. I hope you will fall into good hands; but a horse never knows who may buy him; it is all a chance for us; but still I say, do your best wherever it is, and keep up your good name."

— Anna Sewall.

HELPS TO STUDY

Word Study.

rush'es — marsh-growing plants with soft, slender stems.

whin'nied — neighed.

crup'per — the looped leather band passing around a horse's tail.

breech'ing — the harness which passes around the hind part of a horse, enabling him to hold back a vehicle.

head'stall — the part of the bridle which goes around the head.

girth — the band by which the saddle is kept secure.

ac cus'tomed — made familiar by use.

smith's forge — blacksmith's shop.

fort′night — two weeks, fourteen days.

skirt′ed — bordered.

pales — pointed stakes either driven into the ground or fastened to a rail at the top and bottom for fencing.

dis re gard′ — pay no attention to.

rest′ ive — uneasy, restless.

Notes and Questions. — This selection has been taken from one of the best animal stories ever written. Have you read the entire book? Tell what advice Black Beauty's mother gave her in regard to manners. Why was Black Beauty fond of her master? Relate the story she told about Dick. Describe her appearance. How would you examine a horse if you wished to purchase one? Tell how to break in a colt.

GAMARRA

Gamarra is a dainty steed,
Strong, black, and of a noble breed,
Full of fire, and full of bone,
With all his line of fathers known;
Fine his nose, his nostrils thin,
But blown abroad by the pride within!
His mane is like a river flowing,
And his eyes like embers glowing
In the darkness of the night,
And his pace as swift as light.
Sinewy strength is in his reins,
And the red blood gallops through his veins;
Richer, redder never ran
Through the boasting heart of man.

— Barry Cornwall.

EVENING AT THE FARM

Over the hill the farm boy goes,
His shadow lengthens along the land,
A giant staff in a giant hand.
In the poplar tree, about the spring,
The katydid begins to sing;
  The early dews are falling;
Into the stone heap darts the mink;
The swallows skim the river's brink;
And home to the woodland fly the crows,
When over the hill the farm boy goes,
  Cheerily calling,
  "Co', boss! co', boss! co'! co'!"
Farther, farther, over the hill,
Faintly calling, calling still,
  "Co', boss! co', boss! co'! co'!"

Into the yard the farmer goes,
With grateful heart, at the close of day;
Harness and chain are hung away;
In the wagon shed stand yoke and plow;
The straw's in the stack, the hay in the mow,
  The cooling dews are falling:
The friendly sheep his welcome bleat,
The pigs come grunting to his feet,
The whinnying mare her master knows,
When into the yard the farmer goes,

Emil Adam

END OF DAY

His cattle calling:
"Co', boss! co', boss! co'! co'! co'!"
While still the cowboy, far away,
Goes seeking those that have gone astray —
"Co', boss! co', boss! co'! co'!"

Now to her task the milkmaid goes,
The cattle come crowding through the gate,
Lowing, pushing, little and great;
About the trough, by the farmyard pump,
The frolicsome yearlings frisk and jump,
While the pleasant dews are falling:
The new-milch heifer is quick and shy,
But the old cow waits with tranquil eye,
And the white stream into the bright pail flows,
When to her task the milkmaid goes,
Soothingly calling,
"So, boss! so, boss! so! so! so!"
The cheerful milkmaid takes her stool,
And sits and milks in the twilight cool,
Saying, "So! so, boss! so! so!"

To supper at last the farmer goes,
The apples are pared, the paper read,
The stories are told, then all to bed.
Without, the cricket's ceaseless song
Makes shrill the silence all night long;
The heavy dews are falling.
The housewife's hand has turned the lock;
Drowsily ticks the kitchen clock;
The household sinks to deep repose,

But still in sleep the farm boy goes
  Singing, calling —
  "Co', boss! co', boss! co'! co'! co'!"
And oft the milkmaid, in her dreams,
Drums in the pail with the flashing streams,
  Murmuring, "So, boss! so!"

— John Townsend Trowbridge.

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HELPS TO STUDY

Biographical. — John T. Trowbridge (1827–1916), American novelist and poet, was born in Ogden, N. Y. After a common school education supplemented at home, he taught school for a year in Illinois, and afterwards worked as a journalist in New York and Boston. His works include some of the most wholesome of American fiction for young people. They abound in realistic pictures of life in New England.

Word Study.

mink — a small animal valued for its fur.

frol′ic some — gay.

yearl′ing — one year old, applied chiefly to cattle, sheep, and horses.

tran′quil — quiet, peaceful.

cease′less — without stopping.

Notes and Questions. — In the first stanza explain why "the shadows lengthen." Name the things in the first stanza that indicate the approach of evening. What shows that the boy enjoyed his evening task? What kind of man do you think the farmer was and why? How was he greeted when he went into the yard "at close of day"? Name some duties a farmer has to perform at this time. Describe the scene in the farmyard when the milkmaid enters. What does she say to the cows? Describe the events of the evening as given in the fourth stanza.

OUR RURAL DIVINITY

I wonder that Wilson Flagg did not include the cow among his Picturesque Animals, for that is where she belongs. She has not the classic beauty of the horse, but in picture-making qualities she is far ahead of him. Her shaggy, loosely jointed body; her irregular, sketchy outlines, like those of the landscape, — the hollows and ridges, the slopes and prominences; her tossing horns, her bushy tail, her swinging gait, her tranquil, ruminating habits, all tend to make her an object upon which the artist eye loves to dwell. The artists are forever putting her into pictures, too. In rural landscapes she is an important feature. Behold her grazing in the pastures and on the hillsides, or along banks of streams, or ruminating under wide-spreading trees, or standing knee-deep in the creek or pond, or lying upon the smooth places in the quiet summer afternoon, the day's grazing done, and

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JOHN BURROUGHS OUT OF DOORS

waiting to be summoned home to be milked; and again, in the twilight, lying upon the level summit of the hill, or where the sward is thickest and softest; or, in winter, a herd of them filing along toward the spring to drink, or being "foddered" from the stack in the field upon the new snow, — surely the cow is a picturesque animal, and all her goings and comings are pleasant to behold.

The poets have not made much of the cow, but have rather dwelt upon the steer or the ox yoked to the plow. I recall this touch from Emerson:

> "The heifer that lows in the upland farm,
> Far-heard, lows not thine ear to charm."

But the ear is charmed, nevertheless, especially if it be not too near, and the air be still and dense, or hollow, as the farmer says. And, again, if it be springtime and she task that powerful bellows of hers to its utmost capacity, how round the sound is, and how far it goes over the hills!

The cow figures in Grecian mythology, and in oriental literature is treated as a sacred animal. "The clouds are cows and the rain milk." I remember what Herodotus says of the Egyptians' worship of heifers and steers; and in the traditions of the Celtic nations the cow is regarded as a divinity. In Norse mythology the milk of the cow Andhumbla afforded nourishment to the Frost giants, and it was she that licked into being and into shape a god, the father of Odin. If anything could lick a god into shape, certainly the cow could do it. You may see her perform this office for young Taurus any spring. She licks him out of the fogs and bewilderments and uncertainties in which

Rosa Bonheur

SLOW, DELIBERATE, POWERFUL

he finds himself on first landing upon these shores, and up on his feet in an incredibly short time. Indeed, that potent tongue of hers can almost make the dead alive, any day, and the creative lick of the old Scandinavian mother cow is only a large-lettered rendering of the commonest facts.

The horse belongs to the fiery god Mars. He favors war, and is one of its oldest, most available, and most formidable engines. The steed is clothed with thunder, and smells the battle from afar; but the cattle upon a thousand hills denote that peace and plenty bear sway in the land. The neighing of the horse is a call to battle; but the lowing of old Brockleface in the valley brings the golden age again. The savage tribes are never without the horse; the Scythians are all mounted, but the cow would tame and humanize them. When the Indians will cultivate the cow, I shall think their civilization fairly begun. Recently, when the horses were sick with the epizootic, and the oxen came to the city and helped to do their work, what an Arcadian air again filled the streets!

But the dear old oxen, — how awkward and distressed they looked! Juno wept in the face of every one of them. The horse is a true citizen, and is entirely at home in the paved streets, but the ox — what a complete embodiment of all rustic and rural things! Slow, deliberate, thick-skinned, powerful, hulky, ruminating, fragrant-breathed, when he came to town the spirit and suggestion of all Georgics and Bucolics came with him. O citizen, was it only a plodding, unsightly brute that went by? Was there no chord in your bosom, long silent, that sweetly

Jules Dupré

THE RUNAWAY COW

vibrated at the sight of that patient, Herculean couple? Did you smell no hay or cropped herbage, see no summer pastures with circles of cool shade, hear no voice of herds among the hills? They were very likely the only horses your grandfather ever had. Not much trouble to harness and unharness them. Not much vanity on the road in those days. They did all the work on the early pioneer farm. They were the gods whose rude strength first broke the soil. They could live where the moose and the deer could. If there was no clover or timothy to be had, then the twigs of the basswood and birch would do. Before there were yet fields given up to grass, they found ample pasturage in the woods. Their wide-spreading horns gleamed in the duskiness and their paths and the paths of the cows became the future roads and highways, or even the streets of great cities.

All the descendants of Odin show a bovine trace, and cherish and cultivate the cow. What were those old Vikings but thick-hided bulls that delighted in nothing so much as goring each other? But about all the northern races there is something that is kindred to cattle in the best sense, — something in their art and literature that is essentially pastoral, sweet-breathed, dispassionate, ruminating, wide-eyed, soft-voiced, — a charm of kine, the virtue of brutes.

The cow belongs more especially to the northern peoples, to the region of the good, green grass. She is the true grazing animal. That broad, smooth, always dewy nose of hers is just the suggestion of greensward. She caresses the grass; she sweeps off the ends of leaves; she reaps it with the soft sickle of her tongue. She crops close, but

she does not devour the turf like the horse. She is the sward's best friend, and will make it thick and smooth as a carpet.

"The turfy mountains where live the nibbling sheep" are not for her. Her muzzle is too blunt; then she does not bite as do the sheep; she has no upper teeth, she crops. But on the lower slopes and margins and rich bottoms, she is at home. Where the daisy and the buttercup and clover bloom and where corn will grow, is her proper domain. The agriculture of no country can long thrive without her. Not only a large part of the real, but much of the potential, wealth of the land is wrapped up in her.

I have said the cow has not been of much service to the poets, and yet I remember that Jean Ingelow could hardly have managed her "High Tide" without "Whitefoot" and "Lightfoot" and "Cusha! Cusha! Cusha! calling"; or Trowbridge his "Evening at the Farm," in which the real call of the American farm boy of "Co' boss! Co', Co'," makes a very musical refrain.

What a variety of individualities a herd of cows presents when you have come to know them all, not only in form and color, but in manners and disposition! Some are timid and awkward, and the butt of the whole herd. Some remind you of deer. Some have an expression in the face like certain persons you have known. A petted and well-fed cow has a benevolent and gracious look; an ill-used and poorly fed one, a pitiful and forlorn look. Some cows have a masculine or ox appearance; others are extremely feminine. The latter are the ones for milk. Some cows will kick like a horse; some jump fences like deer. Every herd has its ringleader, its unruly

spirit, — one that plans all the mischief, and leads the rest through the fences into the grain or into the orchard. This one is usually quite different from the master spirit, the "boss of the yard." The latter is generally the most peaceful and law-abiding cow in the lot, and the least bullying and quarrelsome. But she is not to be trifled with; her will is law; the whole herd give way before her, those that have crossed horns with her and those that have not, but yielded their allegiance without crossing. I remember such a one among my father's milkers when I was a boy, a slender-horned, deep-shouldered, large-uddered, dewlapped old cow that we always put first in the long stable, so she could not have a cow on each side of her to forage upon; for the master is yielded to no less in stanchions than in the yard. She always had the first place anywhere. She had her choice of standing-room in the milking yard, and when she wanted to lie down there or in the fields, the best and softest spot was hers. When the herd were foddered from the stack or barn, or fed with pumpkins in the fall, she was always first served. Her demeanor was quiet but impressive. She never bullied or gored her mates, but literally ruled them with the breath of her nostrils. If any newcomer or ambitious younger cow, however, chafed under her supremacy, she was ever ready to make good her claims. And with what spirit she would fight when openly challenged! She was a whirlwind of pluck and valor; and not after one defeat or two defeats would she yield the championship. The boss cow, when overcome, seems to brood over her disgrace, and day after day will meet her rival in fierce combat.

Landseer

HIGHLAND CATTLE

I have owned but three cows, and loved but one. That was the first one, Chloe, a bright red, curly-pated, golden-skinned Devonshire cow, that an ocean steamer landed for me upon the banks of the Potomac one bright May Day many clover summers ago. She came from the North, from the pastoral regions of the Catskills, to graze upon the broad commons of the national capital.

How we waited for her coming! Should I send Drewer, the colored patriarch, for her? No; the master of the house himself should receive Juno at the capital.

"One cask for you," said the clerk, referring to the steamer bill of lading.

"Then I hope it's a cask of milk," I said. "I expected a cow."

"'One cask' it says here."

"Well, let's see it; I'll warrant it has horns and is tied by a rope;" which proved to be the case, for there stood the only object that bore my name, chewing its cud, on the forward deck. How she liked the voyage I could not find out; but she seemed to relish so much the feeling of solid ground beneath her feet once more, that she led me a lively step all the way home. She cut capers in front of the White House, and tried twice to wind me up in the rope as we passed the Treasury. She kicked up her heels on the broad avenue, and became very coltish as she came under the walls of the Capitol. But that night the long-vacant stall in the old stable was filled, and the next morning the coffee had met with a change of heart. I had to go out twice with the lantern and survey my treasure before I went to bed.

This was during the Arcadian age at the capital, before

the easy-going Southern ways had gone out and the prim new Northern ways had come in, and when the domestic animals were treated with distinguished consideration and granted the freedom of the city.

Chloe took very naturally to this kind of life. At first I had to go with her a few times and pilot her to the nearest commons, and then I left her to her own wit, which never failed her. What adventures she had, what acquaintances she made, how far she wandered, I never knew. I never came across her in my walks or rambles. Indeed, on several occasions I thought I would look her up and see her feeding in national pastures, but I never could find her. There were plenty of cows, but they were all strangers. But punctually, between four and five o'clock in the afternoon, her white horns would be seen tossing above the gate and her impatient low be heard.

— JOHN BURROUGHS.

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HELPS TO STUDY

Biographical. — John Burroughs, journalist, poet, and author, was the son of a farmer, and spent much of his youth in farm work. On his New York farm he has devoted himself to nature study, fruit culture, and writing. The writings show the insight of the naturalist and the ease and grace of the poet. Many of his papers were written at "Slabsides," the rustic house that he built on his celery farm a short distance from the Hudson River.

Word Study.

di vin'i ty — a being superior to man.

class'ic — having sharp, clearly defined outline, as if chiseled.

ru'mi nat ing — cud chewing.

sward — turf.
my thol′o gy — the collection of myths of a people.
o ri en′tal — coming from Asia or the East.
He rod′o tus — a Greek historian.
Norse — pertaining to ancient Scandinavia.
po′tent — mighty, powerful.
for′mid a ble — to be dreaded, fearsome.
Scyth′i ans — an ancient people who inhabited the steppes north of the Black Sea.
ep i zoo′tic — influenza among horses.
Ju′no — a goddess.
Georg′ics — agricultural poems.
Bu col′ics — poems of rural life.
Her cul′e an — having extraordinary strength. (The word is derived from the name of the giant Hercules of mythology.)
bo′vine — like an ox; hence sluggish, patient, dull.
Vi′kings — the pirate Norsemen who plundered the coast of Europe during the eighth, ninth, and tenth centuries.
pas′to ral — relating to rural life and scenes.
de mean′or — manner, bearing.
colored pat′ri arch — old colored servant.
Ar ca′di an — simple, quiet.

Notes and Questions. — This gem of literature was written by one of America's greatest nature lovers. Read it over several times to see what a man with sharp eyes and a poet's soul can see in a cow. Which of his thoughts have you already thought as you have worked with cattle? Read other of John Burrough's stories and learn how to see the beautiful things of nature. Why does the author say the cow should be placed among the "Picturesque Animals"? How is she portrayed by artists? How

was the cow regarded by the ancient Greeks, Egyptians, and the Celtic nations? Tell the story of the cow Andhumbla. What is said about the power of a cow's lick? What is meant by "you may see her perform this office for young Taurus any spring"? How does she do this? In what way does the author draw a contrast between the horse and the cow? What does the author think the cow would do for savage tribes? Why does the ox not seem at home on paved streets? What kind of poem does the author say the ox inspires? What part has he played in the history of our country? What is said about the vikings? Describe the cow's manner of grazing. Why is she called "the sward's best friend"? Where is she at home? Mention some of the individualities that a herd of cows presents. Describe the ringleaders of a herd. Tell how "the boss of the yard" rules her companions. Relate the story about Chloe. What is meant by "the Arcadian age at the capital"?

With klingle, klangle, klingle,
Far down the dusty dingle,
The cows are coming home;
Now sweet and clear, and faint and low,
The airy tinklings come and go,
Like chimings from some far-off tower,
Or patterings of an April shower
  That makes the daisies grow —
  Ko-ling, ko-lang, kolinglelingle,
  Far down the darkening dingle
  The cows come slowly home.

— Agnes E. Mitchell.

DAIRY AND BEEF CATTLE

I

Did you ever think of the different uses of food to the animal? When an animal is young and growing, some of its food is used to make growth. When animals work or take exercise, the bodily tissues are, in a measure, used up, and some of the food taken into the body must be utilized to repair this loss. Food also supplies the animal with strength and energy. The body is often compared to a steam engine. The coal or wood which is put into the boiler is burned in order to convert the water into steam, and the steam is used in making the engine work. In like manner, some of the food taken into the animal body is used to give the animal strength and energy so that he may move around and may work. Sometimes, also, part of the food of the animal is converted into milk.

Man has studied these uses of food to the animal, and has employed the knowledge gained, in breeding animals especially suited to his several needs. The dairy cow, that we keep especially for the milk she gives, has been carefully bred for long years, to turn into milk most of the food which she consumes. On the other hand, man has been able to breed another type of cow, called the beef cow, most of whose food is converted into flesh which we use for beef.

It is very interesting to compare these two types of cattle — the dairy or milk type, and the beef or meat type.

HOLSTEINS JUST TURNED OUT TO PASTURE

Let us take a familiar breed of each type or kind and compare them to see how they differ.

The Jersey cow is one of the most common of the dairy breeds in this part of the country, and is one of the best cows that we have for milk and butter. Jerseys that are

CHAMPION DAIRY COW

good milkers are rather lean, rough, and bony. We often hear them spoken of as poor, and they certainly look as if they had not been getting enough to eat. The reason for this is that most of their food is being converted into milk.

One of the best types of beef cattle is the Hereford. These cows give very little milk. Indeed, farmers

raising them rarely find it worth while to milk them at all. When these animals are properly cared for, they are fat and plump and almost square — just the opposite of the Jersey or dairy type. Most of the food of such animals is converted into flesh which furnishes beef for the market.

CHAMPION TWO-YEAR OLD HEREFORD COW

A model beef type

Is it not wonderful how man, with his skill and wisdom, may work in harmony with the great principles of nature and breed animals so that they will use their food just as he wishes it to be used, and develop into just what he wishes them to become? The Jersey and the Hereford may eat from the same trough, consuming exactly the

same kind of food, and the Jersey will convert what she eats into rich milk, while the Hereford will convert what she eats into splendid cuts of steak.

It will be very interesting to you, after you have read this lesson, to observe those cows that make milk from their food, and those that make beef.

Thus we see the difference between the dairy type of cow and the beef type of cow. The beef cow is fat, while the dairy cow is lean and bony. There are many breeds of dairy cattle which have been carefully developed by man. The two most famous breeds are the "Jersey" and the "Holstein."

II

The home of the Jersey cow is the little island of Jersey, in the English Channel. The people of this island have for a number of years given much care and attention to the raising of fine milch cows. Important laws to protect the purity of their cattle have long been in force among them, and as a consequence, Jersey cattle have become famous in many parts of the world.

While the origin of the Jersey is rather uncertain, it is thought that the original stock came from Normandy and Brittany, two provinces of France.

Jersey cattle were imported into America early in the nineteenth century, the first pair being brought to this country in 1818, by Reuben Haines.

The pure bred Jersey cow is always of some shade of fawn color. These animals are typical of the dairy type, being rough and muscular, with short heads, and eyes wide apart. The horns are short and small, and curve

forward. Jerseys are usually small, the average weight of a grown cow being only from six hundred and fifty to eight hundred and fifty pounds. They are famous for their rich milk which contains a large amount of butter fat or cream — although the quantity of milk they yield is not large. Jersey cows are to be seen almost everywhere in the South.

Holland is noted for its milk, butter, and cheese. As a result of the interest which the Dutch people have always

A CHAMPION HOLSTEIN

had in milk and the products of milk, they have given to the world one of the most famous milch breeds of cattle, the Holstein. The history of this breed of cows is obscure, like that of most other breeds. It is claimed that these animals are descended from the prehistoric giant ox. Holsteins were first brought to America by the Dutch colonists who settled New York in the early part of the seventeenth century.

These animals are large, and are black and white in color. The horns, which curve forward, are short, and are white with black tips.

Cows of this breed produce an enormous quantity of milk, some of them having been known to give as much as ten gallons of milk in one day. The milk of the Holstein cow, however, is not nearly as rich in butter fat as that of the Jersey.

III

There are a great many different kinds of cattle used for beef purposes, notable among which are the Shorthorn, the Hereford, and the Angus breeds. With all of these animals which belong to the beef type, most of the food consumed goes to make flesh, so that they give very little milk.

One of the earliest beef breeds to be developed was the Shorthorn. We find the origin of this animal to have been in northeast England, in Durham, Northumberland, and York counties. The men who developed the breed of Shorthorns did not keep very good records, and for this reason the exact origin of the breed is not known. It is thought that the Normans and Romans brought cattle into England that were afterwards mixed with the native English cattle to make the foundation of this breed.

Shorthorn beef cows are typical beef animals. They are large — perhaps the largest cattle that we have — weighing fourteen hundred pounds and more. Their horns are short, small, and curve forward. Their necks are short. The color of these animals may be red, red and white, white, or roan.

A PURE BRED SHORTHORN

In the southern part of England originated another of our most important strains of beef cattle, the Hereford. The origin of this breed is, like that of the Shorthorn, uncertain. It is claimed by students of the history of these animals that they were bred from the original English stock. Richard Tompkins and a man by the name of Haywood were among the earlier and more important breeders of Herefords. These animals were first imported into the United States to Lexington, Kentucky, in 1817, by a man named Henry.

The Herefords are large, but not quite as large as the Shorthorns. Their horns are white, and curve forward and downward, and are longer than those of the Shorthorn breed. The neck of a Hereford is rather long and tapers toward the head. In color the animal is medium red with white face, white feet, and white tail, and with white under the body.

ABERDEEN ANGUS HEIFER

Another one of the famous breeds of beef cattle is the Aberdeen Angus, or, as it is sometimes called, the Polled Angus. This breed originated in northeast Scotland, and is perhaps descended from the English cattle.

Some of the early breeders of Polled Angus cattle were William McCombie, Lord Southesk, and the Watson family. Mr. George Grany of Victoria, Kansas, has the honor of first bringing these animals to America, having brought some of them to his home at Victoria in 1873.

Aberdeen Angus cattle have no horns. This is the reason they are sometimes called "Polled" Angus cattle. Their bodies are rather round and they are compactly built. In color they are solid black.

HELPS TO STUDY

Word Study.

con vert′ed — changed.

har′mo ny — union, agreement.

milch — milk.

ob scure′ — not clear or certain.

pre his tor′ic — before history.

roan — of a bay or chestnut color with white or gray thickly interspersed.

polled — sheared, clipped.

Notes and Questions. — In what way has man bred cows for special purposes? Describe the Jersey cow; the Hereford. Describe the dairy type and the beef type of cow. Name the two best dairy types. Where did the Jersey cow come from? Describe the Holstein cow. What can you say of the milk of the different types of cows? Name the beef cattle. Describe the Shorthorn. Describe the Polled Angus cattle.

The crows flapped over by twos and threes,
In the pool drowsed the cattle up to their knees,
    The little birds sang as if it were
    The one day of summer in all the year,
And the very leaves seemed to sing on the trees.

— James Russell Lowell.

THE OLD BARN

Low, swallow-swept and gray,
Between the orchard and the spring,
All its wide windows overflowing hay,
And crannied doors a-swing,
The old barn stands to-day.

Deep in its hay the Leghorn hides
A round white nest; and, humming soft
On roof and rafter, or its log-rude sides,
Black in the sun-shot loft,
The building hornet glides.

Along its corn-crib, cautiously
As thieving fingers, skulks the rat;
Or in warped stalls of fragrant timothy,
Gnaws at some loosened slat,
Or passes shadowy.

A dream of drouth made audible
Before its door, hot, smooth, and shrill
All day the locust sings. . . . What other spell
Shall hold it, lazier still
Than the long day's, now tell: —

Dusk and the cricket and the strain
Of tree toad and of frog; and stars
That burn above the rich west's ribbèd stain;
And dropping pasture bars,
And cowbells up the lane.

Night and the moon and katydid,
And leaf-lisp of the wind-touched boughs;
And mazy shadows that the fireflies thrid;
And sweet breath of the cows,
And the lone owl here hid.

— MADISON J. CAWEIN.

HELPS TO STUDY

Word Study.

cran′nied — full of chinks or cracks.
a-swing′ — swinging.
leg′horn — a breed of chickens.
log-rude — of rough logs.
skulk — to try to avoid attention.
warped — twisted, bent.
au′di ble — easy to hear.
strain — sound.
ma′zy — winding.
thrid — to make or find a course through, to thread.

Notes and Questions. — Describe the old barn. Tell all you know about the hornet. What is meant by " the sun-shot loft " ? What characteristics of the rat are described? What were the sounds heard around the barn in the daytime? What was " the strain of tree toad and of frog " ? Explain " that burned above the rich west's ribbed stain." Why are the pasture bars dropped? When does the katydid sing? What is meant by the " leaf-lisp of the wind-touched boughs " ? How does the wind add to the charm of night? What does the firefly do?

For biography see p. 24, Book Four.

HOGS

If the farmer does not raise his own meat, he is at the mercy of high prices — he must pay dearly for it even though the sellers may demand for it three or five or ten times what it should really cost. Bacon that the farmer could produce for himself for less than five cents a pound is sold to him in the market for from fifteen to twenty cents a pound. In the last ten years there has been a

A BERKSHIRE HOG

steadily increasing alarm about the high and higher cost of living, and thinkers have given themselves much concern as to how to solve the problem. The intelligent farmer can work out the solution of the problem for himself, simply by producing on his own farm the foodstuffs that he needs. It is not only a good plan for the farmer to produce the meat needed for his own household, but it is very much to his advantage to have a surplus to sell.

A POLAND-CHINA HOG

The average farmer has the idea that hogs will do well without much care and attention. This is a very great mistake. It is true that hogs may get along in a way without much attention, but to do well and make the farmer the greatest profit, they must be given good clean surroundings and care and attention like other animals. It is a great mistake to think that hogs like filth, for they do not.

If possible, when one starts in the business of raising hogs, some good improved breed should be selected. There are several breeds of hogs well adapted to the South. Some of these are the "Berkshire," the "Poland-China," and the "Duroc-Jersey."

A DUROC-JERSEY HOG

The Berkshire breed of hogs originated in the southern part of England in the counties of Wilkes and Berkshire. These hogs have been known for many years, and have always been popular.

The Berkshire hog is a large animal, black in color, with white on face, feet, and tip of tail. The face is sharply dished, so much so that the nose appears to run almost straight out from the forehead. The ears stand up straight on the head. This breed of hogs was first brought to America in 1823 by John Brentnall. The records show that they were brought first to the state of New Jersey.

The Poland-China breed of hogs was originated and developed in the United States. In looking up the

history of these animals we find that they were first known in the counties of Warren and Butler in southwestern Ohio. Their exact origin is not definitely known, and there is quite a difference of opinion about it.

The head of the animal is medium in length and its nose is nearly straight. Its color is black with, sometimes, white on the feet, face, and tip of tail. The tips of its ears droop over.

The Duroc-Jersey breed of hogs is another improved and valuable type which has been bred through a long number of years to its present state of perfection. The exact origin of this hog is not fully known. In studying the history and development of different breeds we find that a number of hogs have the appearance of the Duroc-Jersey. This leaves its exact origin in doubt. The animal seems to be the result of the mixing of a number of types. It is a large red hog. The face or nose is nearly straight or very slightly dished. In shape of face, it has somewhat the appearance of the Poland-China, while the ears droop.

HELPS TO STUDY

Word Study.

so lu′tion — explanation.
sur′plus — that which is left over.
a dapt′ed — suitable.
dished — curved in like a dish.

Notes and Questions. — Describe the Berkshire hog. Describe the Poland-China hog. How should hogs be cared for? Do hogs like filthy places to live in? Why should the farmer raise his own meat?

THE ORIGIN OF ROAST PIG

Mankind, says a Chinese manuscript, which my friend M. was obliging enough to read and explain to me, for the first seventy thousand ages ate their meat raw, clawing or biting it from the animal, just as they do in Abyssinia to this day. This period is not obscurely hinted at by their great Confucius in the second chapter of his Mundane Mutations, where he designates a kind of golden age by the term Chofang, literally the Cook's Holiday. The manuscript goes on to say that the art of roasting, or rather broiling, was accidentally discovered in the manner following.

The swineherd, Ho-ti, having gone out into the woods one morning, as his manner was, to collect mast for his hogs, left his cottage in the care of his eldest son, Bo-bo, a great lubberly boy, who, being fond of playing with fire, as youngsters of his age commonly are, let some sparks escape into a bundle of straw, which, kindling quickly, spread the conflagration over every part of their poor mansion, till it was reduced to ashes. Together with a cottage (a sorry makeshift of a building, you may think it), what was of much more importance, a fine litter of newborn pigs, no less than nine in number, perished.

China pigs have been esteemed a luxury all over the East, from the remotest periods that we read of. Bo-bo was in the utmost consternation, as you may think, not so much for the sake of the tenement — which his father and he could easily build up again with a few dry branches,

and the labor of an hour or two, at any time — as for the loss of the pigs.

While he was thinking what he should say to his father, and wringing his hands over the smoking remnants of one of those untimely sufferers, an odor assailed his nostrils, unlike any scent which he had before experienced. What could it proceed from? — not from the burnt cottage — he had smelt that smell before; indeed this was by no means the first accident of the kind which had occurred through the negligence of this unlucky young firebrand. Much less did it resemble that of any known herb, weed, or flower.

He knew not what to think. He next stooped down to feel the pig, if there were any signs of life in it. He burned his fingers, and to cool them he applied them in his booby fashion to his mouth. Some of the crumbs of the scorched skin had come away with his fingers, and for the first time in his life (in the world's life, indeed, for before him no man had known it) he tasted — *crackling!* Again he felt and fumbled at the pig. It did not burn him so much now; still he licked his fingers from a sort of habit.

The truth at length broke into his slow understanding that it was the pig that smelled so, and the pig that tasted so delicious. Surrendering himself to the newborn pleasure, he fell to tearing up whole handfuls of the scorched skin with the flesh next it, and was cramming it down his throat in his beastly fashion, when his sire entered amid the smoking rafters, armed with a cudgel. Finding how affairs stood, he began to rain blows upon the young rogue's shoulders, as thick as hailstones, which Bo-bo heeded not any more than if they had been flies. His

father might lay on, but he could not beat him from his pig, till he had fairly made an end of it; when something like the following dialogue ensued:

"You graceless whelp, what have you got there devouring? Is it not enough that you have burned down three houses with your dog's tricks, and be hanged to you! but you must be eating fire, and I know not what — what have you got there, I say?"

"O father, the pig, the pig! do come and taste how nice the burnt pig eats."

The ears of Ho-ti tingled with horror. He cursed his son, and he cursed himself that ever he should have a son that should eat burnt pig.

Bo-bo, whose scent was wonderfully sharpened since morning, soon raked out another pig, and fairly rending it asunder, thrust the lesser half by main force into the fists of Ho-ti, still shouting out, "Eat, eat, eat, the burnt pig, father, only taste!" — with such barbarous cries, cramming all the while as if he would choke.

Ho-ti trembled in every joint while he grasped the abominable thing, wavering whether he should not put his son to death for an unnatural young monster. But the crackling scorched his fingers, as it had done his son's; and applying the same remedy to them, he in his turn tasted some of its flavor, which, make what sour mouths he would for pretence, proved not altogether displeasing to him. In conclusion both father and son fairly sat down to the mess, and never left off till they had dispatched all that remained of the litter.

Bo-bo was strictly enjoined not to let the secret escape, for the neighbors would certainly have stoned them for a

couple of abominable wretches, who could think of improving upon the good meat which God had sent them. Nevertheless, strange stories got about. It was observed that Ho-ti's cottage was burned down more frequently than ever. Nothing but fires from this time forward. Some would break out in broad day, others in the night time. Ho-ti himself, which was the more remarkable,

THE JURY ALL HANDLED IT

instead of chastising his son, seemed to grow more indulgent to him than ever.

At length they were watched, the terrible mystery discovered, and the father and son summoned to take their trial at Pekin. Evidence was given, the obnoxious food itself produced in court, and verdict about to be pronounced, when the foreman of the jury begged that some of the burnt pig, of which the culprit stood accused, might

be handed into the box. He handled it, and the jury all handled it. They all burned their fingers as Bo-bo and his father had done before them, and nature prompted to each of them the same remedy. Against the face of all the facts, and the clearest charge which judge had ever given, — to the surprise of the whole court, townsfolk, strangers, reporters, and all present — without leaving the box, or any manner of consultation whatever, they brought in a verdict of Not Guilty.

The judge, who was a shrewd fellow, winked at the unfairness of the decision; and when the court was dismissed went privily, and bought up all the pigs that could be had for love or money. In a few days his lordship's town house was observed to be on fire. The thing took wing, and now there was nothing to be seen but fire in every direction. Fuel and pigs grew enormously dear all over the district. The insurance offices one and all shut up shop.

People built slighter and slighter every day, until it was feared that the very science of architecture would be lost to the world. Thus the custom of firing houses continued, till in process of time, says my manuscript, a sage arose, who made a discovery that the flesh of swine, or indeed of any other animal, might be cooked (burned as they called it) without the necessity of consuming a whole house to dress it.

Then first began the rude form of gridiron. Roasting by the string or spit came in a century or two later. By such slow degrees, concludes the manuscript, do the most useful and seemingly the most obvious arts make their way among mankind. — CHARLES LAMB.

HELPS TO STUDY

Biographical. — Charles Lamb was born in London in 1775 and lived to be fifty-nine years old. He was most fortunate in the long list of his eminent and brilliant friends. "No character study in English Literature exceeds his in interest because his life, his essays, and his letters are inseparably interwoven." Many young people first became acquainted with Shakespeare through the delightful "Tales from Shakespeare" by Charles Lamb and his sister Mary.

Word Study.

man′u script — a book or paper before it is printed.

Ab ys sin′i a — a country of eastern Africa.

Con fu′ci us (shi us) — a celebrated Chinese philosopher.

Mun′dane Mu ta′tions — a book of Confucius meaning earthly changes.

mast — various nuts used as food for hogs.

lub′ber ly — awkward, clumsy.

con fla gra′tion — a great fire.

ten′e ment — a dwelling house.

rem′nant — that which is left after a part has been removed.

as sailed′ — attacked.

fire brand′ — one who maliciously burns property.

crack′ling — the well-browned, crisp rind of roasted pork.

sire — father.

a sun′der — apart.

a bom′i na ble — hateful, unclean.

chas tis′ing — punishing.

in dul′gent — showing favor, kind.

ob nox′ious — offensive, hateful.

cul′prit — a guilty person.

priv′i ly — secretly, privately.

spit — a long pointed rod on which meat is roasted.

HARK! HARK! THE LARK

Hark! hark! the lark at heaven's gate sings,
  And Phœbus 'gins arise,
His steeds to water at those springs
  On chaliced flowers that lies;
And winking Mary-buds begin
  To ope their golden eyes:
With everything that pretty is,
  My lady sweet, arise!
    Arise, Arise!

— SHAKESPEARE.

HELPS TO STUDY

Biographical. — William Shakespeare, a famous English poet and the greatest of dramatists, was born in Stratford-on-Avon in 1564. Little is known of his life. His parents were poor, and it is probable that his education was somewhat scanty. He became an actor in one of the London companies when a young man, thus gaining practical training for the writing of the plays which have made him famous.

Word Study.
'gins — begins.
steeds — war horses.
chaliced flowers — cup-shaped blossoms.
ope — open.
Mary-buds — marigolds.

Notes and Questions. — Phœbus, also called Apollo, was the Greek god of the sun. The Greeks thought of him as driving across the sky in his golden chariot. What is meant by the lark "at heaven's gate sings"? Explain what is meant by "chaliced flowers." What is meant by the "springs on chaliced flowers"? What happens to the drops of moisture on the grass and flowers when the sun rises? Express in your own words "winking Mary-buds begin to ope their golden eyes."

"Hark! Hark! The Lark" is from "Cymbeline," one of Shakespeare's plays.

THE PANTHER HUNT

I

I entered the squatter's cabin, and immediately opened a conversation with him respecting the selection of the swamp and its natural productions. He told me he thought it the very place I ought to visit, spoke of the game which it contained, and pointed to some bear and deer skins, adding that the individuals to which they had belonged formed but a small portion of the number of those animals which he had shot within it.

AUDUBON
From the portrait by Inman

My heart swelled with delight; and on asking if he would accompany me through the great swamp and allow me to become an inmate of his humble but hospitable mansion, I was gratified to find that he cordially assented to all my proposals. So I immediately unstrapped my drawing materials, laid up my gun, and sat down to partake of the homely but wholesome fare intended for the supper of the squatter, his wife, and his two sons.

The quietness of the evening seemed in perfect accordance with the gentle demeanor of the family. The wife

and children, I more than once thought, seemed to look upon me as a strange sort of person, going about, as I told them I was, in search of birds and plants; and were I here to relate the many questions they put to me, in return for those which I addressed to them, the catalogue would occupy several pages.

The squatter, his sons, and myself spoke of hunting and fishing, until at length tired, we laid ourselves down on pallets of bear skins, and reposed in peace on the floor of the only apartment of which the hut consisted.

Day dawned, and the squatter's call to his hogs, which, being almost in a wild state, were suffered to seek the greater portion of their food in the forest, awakened me. Being fully dressed, I was not long in joining him. The hogs and their young came grunting at the well-known call of their owner, who threw them a few ears of corn and counted them, but told me that for some weeks their number had been greatly diminished by the ravages committed upon them by a large panther, by which name the cougar is designated in America, and that the ravenous animal did not content himself with the flesh of his pigs, but now and then carried off one of his calves, notwithstanding the many attempts he had made to shoot it.

The "painter," as he sometimes called it, had on several occasions robbed him of a dead deer, and to these exploits, the squatter added several remarkable feats of audacity which it had performed, to give me an idea of the formidable character of the beast. Delighted by his description, I offered to assist him in destroying the enemy; at which he was highly pleased, but assured me that unless some of the neighbors should join us with

their dogs and his own, the attempt would prove fruitless.

Soon after, mounting a horse, he went off to his neighbors, several of whom lived at a distance of some miles, and appointed a day of meeting. The hunters, accordingly, made their appearance one fine morning at the door of the cabin, just as the sun was emerging from beneath the horizon. They were five in number and fully equipped for the chase, being mounted on horses, which in some parts of Europe might appear sorry nags, but which in strength, speed, and bottom are better fitted for pursuing a cougar or a bear through woods and morasses than any in their country.

A pack of large, ugly curs was already engaged in making acquaintance with those of the squatter. He and myself mounted his two best horses, while his sons were bestriding others of inferior quality. Few words were uttered by the party until we had reached the edge of the swamp, where it was agreed that all should disperse, and seek for the fresh track of the "painter," it being previously settled that the discoverer should blow his horn and remain on the spot until the rest should join him.

In less than an hour the sound of the horn was clearly heard, and sticking close to the squatter, off we went through the thick woods, guided only by the now-and-then repeated call of the distant huntsman. We soon reached the spot, and in a short time the rest of the party came up. The best dog was sent forward to track the cougar, and in a few moments the whole pack was observed diligently trailing and bearing in their course

for the interior of the swamp. The rifles were immediately put in trim and the party followed the dogs at separate distances, but in sight of each other, determined to shoot at no other game than the panther.

II

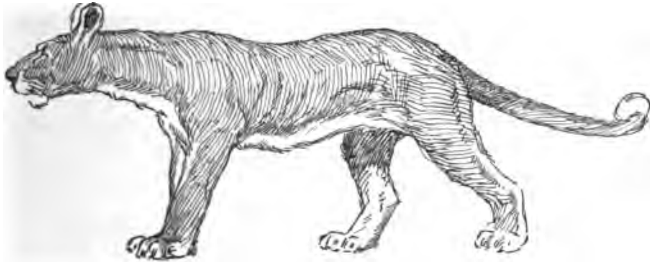
The dogs soon began to mouth, and suddenly quickened their pace. My companions concluded that the beast was on the ground, and putting our horses to a gallop, we followed the curs, guided by their voices. The noise of the dogs increased, when all of a sudden their mode of barking became altered, and the squatter, urging me to push on, told me that the beast was *treed*, by which he meant that it had got upon some low branch of a large tree to rest for a few moments, and that should we not succeed in shooting him while thus situated, we might expect a long chase of it.

As we approached the spot, we all by degrees united into a body, but on seeing the dogs at the foot of a large tree, separated again, and galloped off to surround it. Each hunter now moved with caution, holding his gun ready and allowing the bridle to dangle on the neck of his horse, as it advanced slowly towards the dogs. A shot from one of the party was heard, on which the cougar was seen to leap to the ground, and bound off with such velocity as to show that he was very unwilling to stand our fire longer.

The dogs set off in pursuit with great eagerness, and in deafening cry. The hunter who had fired came up and said that his ball had hit the monster, and had probably broken one of its forelegs, near the shoulder, the

only place at which he could aim. A slight trail of blood was discovered on the ground, but the curs proceeded at such a rate that we merely noticed this and put spurs to our horses, which galloped on towards the center of the swamp.

One bayou was crossed, then another still larger and more muddy, but the dogs were brushing forward, and as the horses began to pant at a furious rate, we judged it expedient to leave them and advance on foot. Those



determined hunters knew that the cougar, being wounded, would shortly ascend another tree, where in all probability he would remain for a considerable time, and that it would be easy to follow the track of the dogs.

We dismounted, took off the saddles and bridles, set the bells attached to the horses' necks at liberty to jingle, hoppled them, and left them to shift for themselves. Now, kind reader, follow the group marching through the swamp, crossing muddy parts, and making the best of their way over fallen trees, and amongst the tangled rushes that now and then covered acres of ground. . . .

After marching for a couple of hours, we again heard the dogs; each of us pressed forward, elated at the

thought of terminating the career of the cougar. Some of the dogs were heard whining, although the greater number barked vehemently. We felt assured that the cougar was treed, and that he would rest for some time to recover from his fatigue. As we came up with the dogs, we discovered the ferocious animal, lying across a large branch, close to the trunk of a cottonwood tree.

His broad breast lay towards us; his eyes were at one time bent on us and again on the dogs beneath and around him; one of his forelegs hung loosely by his side, and he lay crouched with his ears lowered close to his head, as if he thought he might remain undiscovered. Three balls were fired at him at a given signal, on which he sprang a few feet from the branch, and tumbled headlong to the ground, attacked on all sides by the enraged curs.

The infuriated cougar fought with desperate valor; but the squatter advancing in front of the party, and, almost in the midst of the dogs, shot him immediately behind and beneath the left shoulder. The cougar writhed for a moment in agony, and in another lay dead.

— John James Audubon.

HELPS TO STUDY

Word Study.

de mean′or — behavior, conduct.

di min′ish — to decrease, to make smaller.

cou′gar — the American panther.

rav′en ous — devouring with eagerness.

au dac′i ty — boldness.

e quipped′ — fitted out.

mo rass′es — tracts of soft, wet land.
in te′ri or — inside, remote from the limits.
ve loc′i ty — swiftness.
bayou (**bi′oo**) — a sluggish water-course.
ex pe′di ent — advisable.
hop′ple — to tie the feet together loosely.
e lat′ed — delighted, overjoyed.
ter′mi nat ing — putting to an end.
ve′he ment ly — furiously.
fa tigue′ — weariness.
in fu′ri at ed — enraged, greatly angered.

Notes and Questions. — What is a "squatter"? Why did Audubon offer to assist in the panther hunt? How were they equipped for the chase? Tell how the party surrounded the treed animal. How did the cougar escape? Tell how he was pursued. Why did the hunters dismount? What precautions did they take before leaving the horses? Describe their pursuit of the panther. Tell how he was killed. Does this seem to be a true story? Why do you think so? Do you find it interesting? Why? What is the most exciting moment in the story? Name other animals which belong to the same family as the cougar. Who was Audubon?

For biography see p. 227, Book Four.

THE BIOGRAPHY OF A BEAVER

I

A broad, flat tail came down on the water with a whack that sent the echoes flying back and forth across the pond, and its owner ducked his head, arched his back, and dived to the bottom. It was a very curious tail, for besides being so oddly paddle-shaped it was covered with what looked like scales, but were really sections and indentations of hard, horny, blackish gray skin. Except its owner's relations, there was no one else in all the animal kingdom who had one like it. But the strangest thing about it was the many different ways in which he used it. Just now it was his rudder — and a very good rudder, too.

In a moment his little brown head reappeared, and he and his brothers and sisters went chasing each other round and round the pond, ducking and diving and splashing, raising such a commotion that they sent the ripples washing all along the grassy shores, and having the jolliest kind of a time. When the youngsters wanted a change, they climbed up on to a log, and nudged and hunched each other, poking their noses into one another's fat little sides, and each trying to shove his brother or sister back into the water.

By and by they scrambled out on the bank, and then, when their fur had dripped a little, they set to work to comb it. Up they sat on their hind legs and tails — the

tail was a stool now, you see — and scratched their heads and shoulders with the long brown claws of their small, black, hairy hands. Then the hind feet came up one at a time, and combed and stroked their sides till the moisture was gone and the fur was soft and smooth and glossy as velvet.

After that they had to have another romp. They were not half as graceful on land as they had been in the water. In fact they were not graceful at all, and the way they stood around on their hind legs, and shuffled and pranced and wheeled like baby hippopotamuses, and slapped the ground with their tails, was one of the funniest sights in the heart of the woods. And the funniest and liveliest of them all was the one whom I shall now call the Beaver — with a big B.

The first year of his life was an easy one, especially the winter, when there was little for any one to do except to eat, to sleep, and now and then to fish for the roots of the yellow water lily in the soft mud at the bottom of the pond. During that season he probably accomplished more than his parents did, for if he could not toil he could at least grow.

But later, on a dark autumn night, behold the young Beaver working with might and main. His parents have felled a tree, and it is his business to help them cut up the best portions and carry them home. He gnaws off a small branch, seizes the butt end between his teeth, swings it over his shoulder and makes for the water, keeping his head twisted around to the right or left so that the end of the branch may trail on the ground behind him.

Sometimes he even rises on his hind legs, and walks almost upright, with his broad, strong tail for a prop to keep him from tipping over backward if his load happens to catch on something. Arrived at the canal or at the edge of the pond, he jumps in and swims for town, still carrying the branch over his shoulder, and finally leaves it on the growing pile in front of his father's lodge.

These were his first tasks. Later on he learned to fell trees himself. Standing on his hind legs and tail, with his hands braced against the trunk, he would hold his head sidewise, open his mouth wide, set his teeth against the bark, and bring his jaws together with a savage nip that left a deep gash in the side of the tree. A second nip deepened the gash, and gave it more of a downward slant, and two or three more carried it still farther into the tough wood.

Then he would choose a new spot a little farther down, and start a second gash, which was made to slant up toward the first. And when he thought that they were both deep enough he would set his teeth firmly in the wood between them, and pull and jerk and twist at it until he had wrenched out a chip — a chip perhaps two inches long, and from an inch to a quarter of an inch thick.

Chip after chip was torn out in this way, and gradually he would work around the tree until he had completely encircled it. Then the groove was made deeper. Little by little he dug away the tree's flesh until there was nothing left but its heart, and it began to creak and rend. The Beaver jumped aside to get out of the way, and hundreds of small, tender branches, and delicious little

twigs and buds came crashing down where he could cut them off and eat them or carry them away at his leisure.

One night the Beaver came swimming down the pond, homeward bound, and as he dived and approached the submarine entrance of the lodge, he noticed some stakes driven into the mud — stakes that had never been there before. They seemed to form two rows, one on each side of his course, but as there was room enough for him to pass between them he swam straight ahead without stopping.

His hands had no webs between the fingers, and were of little use in swimming, so he had folded them back against his body; but his big feet were working like the wheels of a twin-screw steamer, and he was forging along at a great rate. Suddenly, halfway down the line of stakes, his breast touched the pan of a steel trap, and the jaws flew up quick as a wink and strong as a vise. Fortunately there was nothing that they could take hold of. They struck him so hard that they lifted him bodily upward, but they caught only a few hairs.

A week later, however, he was really caught and lost his right hand. By the time the Beaver's wound was healed — Nature was good to him, and the skin soon grew over the torn stump — the pond was covered with ice. The beavers, only half as numerous as they had been a few weeks before, kept close in their lodges and burrows, and for a time they lived in peace and quiet, and their numbers suffered no further diminution. Then the trapper took to setting his traps through the ice, and before long matters were worse than ever. By spring the few beavers that remained were so thoroughly

frightened that the ancient town was abandoned forever. The lodges fell to ruins, the burrows caved in, the dam gave way, the pond and canals were drained, and that was the end of the city.

II

The next city that claimed the honor of being our Beaver's home was a brand new one. Let us see how it had its beginning. The Beaver got married about the time he left his old home. Except for his missing hand, his wife was so like him that it would have puzzled you to tell which was which. Do you want to know what they looked like? They measured about three feet six inches from tip of nose to tip of tail, and they weighed perhaps thirty pounds apiece.

Their bodies were heavy and clumsy, and were covered with thick, soft, grayish underfur, which in turn was overlaid with longer hairs of a glistening chestnut-brown, making a coat that was thoroughly waterproof as well as very beautiful. Their heads were somewhat like those of gigantic rats, with small, light brown eyes, little round ears covered with hair, and long orange-colored incisors looking out from between parted lips. One portrait will answer for both of them.

They wandered about for some time, looking for a suitable location, and examining several spots along the beds of various little rivers, none of which seemed to be just right. But at last they found, in the very heart of the wilderness, a place where a shallow stream ran over a hard stony bottom, and here they set to work. Alder bushes laid lengthwise of the current were the first ma-

terials used, and for a time the water filtered through them with hardly a pause. Then the beavers began laying mud and stones and moss on this brush foundation, scooping them up with their hands, and holding them under their chins as they waddled or swam to the dam.

BUILDING A DAM

The first year the beavers did not try to raise the stream more than a foot above its original level. There was much other work to be done — a house to be built, and food to be laid in for the winter — and if they spent too much time on the dam they might freeze or starve

before spring. A few rods upstream was a grassy point which the rising waters had transformed into an island, and here they built their lodge, a hollow mound of sticks and mud, with a small, cave-like chamber in the center, from which two tunnels led out under the pond.

The walls were masses of earth and wood and stones, so thick and solid that even a man with an ax would have found it difficult to penetrate them. Only at the very apex of the mound there was no mud, nothing but tangled sticks through which a breath of fresh air found its way now and then. In all other respects the house was neat and clean. The floor was only two or three inches above the level of the water in the tunnels, and would naturally have been a bed of mud; but they mixed little twigs with it, and stamped and pounded it down till it was hard and smooth. With the ends of projecting sticks cut off to leave the walls even and regular, and with long grass carried in to make the beds, the lodge was finished and ready.

Five babies came in May, and they were very pretty children — about as large as rats, and covered with thick, soft, silky, reddish-brown fur, but without any of the longer, coarser, chestnut-colored hairs that formed their parents' outer coats. They were very playful, too, as the father and mother had been in their own youthful days. The old beavers brought in little twigs for them, about the size of lead pencils; and if you had been there, and your eyes had been sharp enough to pierce the gloom you might have seen the youngsters exercising their brand-new teeth, and learning to sit up and hold sticks in their baby hands while they ate the bark.

And wouldn't you have liked to be present on the night when they first went swimming down the long dark tunnel; and, rising to the surface, looked around on their world of woods and water — on the quiet pond, with its glassy smoothness broken only by their own ripples; on the tall trees, lifting their fingers toward the sky; and on the stars, marching silently across the heavens, and looking down with still, unwinking eyes on another family of babies that had come to live and love and be happy for a little while on God's earth?

Only once that year did a man come to town, and then he did not do anything very dreadful. He was not a trapper, he was only an amateur naturalist who wanted to see the beavers at their work, and who thought he was smart enough to catch them at it. His plan was simple enough: he made a breach in the dam and then climbed a tree and waited for them to come and mend it. It was bright moonlight, and he thought he would see the whole thing and learn some wonderful secrets.

The Beaver was at work in the woods not very far away, and presently he came down to the edge of the pond, rolling a heavy birch cutting before him. He noticed at once that the water was falling, and he started straight for the dam to see what was the matter. The amateur naturalist saw him coming, a dark speck moving swiftly down the pond, with a long V-shaped ripple spreading out behind him like the flanks of a flock of wild geese. But the Beaver was doing some thinking while he swam. He had never before known the water to fall so suddenly and rapidly; there must be a very bad break in the dam.

How could it have happened? It looked suspicious. It looked very suspicious indeed; and just before he reached the dam he stopped to reconnoiter, and at once caught sight of the naturalist up in the tree. His tail rose in the air and came down with the loudest whack that had ever echoed across the pond, a stroke that sent the spray flying in every direction, and that might have been heard three-quarters of a mile away. His wife heard it, and paused in her work of felling a tree; the children heard it, and the neighbors heard it; they all knew it meant business.

The Beaver dived like a loon and swam for dear life, and he did not come to the surface again till he had reached the farther end of the pond and was out of sight behind a grassy point. There he stayed, now and then striking the water with his tail as a signal that the danger was not yet over. The naturalist roosted in the tree till his teeth were chattering and he was fairly blue with cold, and then he scrambled down and went back to his camp. He decided that watching beavers wasn't very interesting, anyhow — hardly worth the trouble it cost.

In the following year the population was increased to eighteen, for six more babies arrived in our Beaver's lodge, and four in his neighbors'. In another twelvemonth the first five were old enough to build lodges and found homes of their own; and so the city grew, and our Beaver and his wife were the original inhabitants, the first settlers, the most looked up to of all the citizens.

— WILLIAM DAVENPORT HULBERT.

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HELPS TO STUDY

Word Study.

in den ta′tion — a notch.

rud′der — the frame of wood or metal by which a vessel is steered.

hip po pot′a mus es — large animals living both on land and in water, called also river horses.

rend — to split, to tear.

sub′ma rine — being under water.

vise — a two-jawed instrument for holding work.

dim i nu′tion — the act of making less.

gi gan′tic — of extraordinary size.

in ci′sor — one of the teeth in front of the canines in either jaw.

o rig′i nal — first in order, pertaining to the beginning.

rod — sixteen and a half feet.

trans formed′ — changed the form of.

a′pex — the tip, the topmost point.

pro ject′ing — extending beyond something.

am′a teur — one who cultivates the special study of a science or an art without making its pursuit a profession.

rec on noi′ter — to examine, to survey.

loon — any of several fish-eating, diving birds.

Notes and Questions. — Describe a beaver's tail. Tell how the little beavers amuse themselves. What were the young beaver's first tasks? How did he fell trees? What use did he make of the tender branches and twigs? How are beavers caught? Tell how young Beaver lost his hand. Why did the beavers abandon their town? Describe a beaver. Where did they locate their new town? Describe their lodge. Tell about the attempt of an amateur naturalist to see the beavers at work. For what is the beaver valued?

HUNTED BY A BEAR

A Story of the Fifteenth Century

As they drew near the Rhine, they passed through forest after forest, and now for the first time ugly words sounded in the mouths of travelers, seated around stoves.

The very rustics were said to have a custom hereabout of murdering the unwary traveler in these gloomy woods, whose dark and devious windings enabled those who were familiar with them to do deeds of rapine and blood undetected, or, if detected, easily to baffle pursuit.

Certain it was that every clown they met carried, whether for offense or defense, a most formidable weapon; a light ax, with a short pike at the head, and a long slender handle of ash or yew, well seasoned. These the natives could all throw with singular precision, so as to make the point strike an object at several yards' distance, or could slay a bullock at hand with a stroke of the blade. Gerard bought one and practiced with it; Denys quietly filed and ground his bolt sharp, whistling the whilst; and when they entered a gloomy wood, he would unsling his crossbow and carry it ready for action; but not so much like a traveler fearing an attack, as a sportsman watchful not to miss a snap shot.

One day, being in a forest a few leagues from Düsseldorf, as Gerard was walking like one in a dream, and scarce seeing the road he trod, his companion laid a hand on his shoulder, and strung his crossbow with glittering eye. "Hush!" said he, in a low whisper that startled

Gerard more than thunder. Gerard grasped his ax tightly, and shook a little. He heard a rustling in the wood hard by, and at the same moment Denys sprang into the wood, and his crossbow went to his shoulder, even as he jumped. Twang! went the metal string, and after an instant's suspense he roared: "Run forward, guard the road. He is hit! He is hit!"

Gerard darted forward, and as he ran, a young bear burst out of the wood right upon him; finding itself intercepted, it went upon its hind legs with a snarl, and though not half-grown, opened formidable jaws and long claws. Gerard, in a fury of excitement and agitation, flung himself on it, and delivered a tremendous blow with his ax.

"Hallo! Stop! You are mad."

"I took it for a robber," said Gerard, panting. "I mean, I had made ready for a robber, so I could not hold my hand."

"Ay, these chattering travelers have stuffed your head full of thieves and assassins; they have not got a real live robber in their whole nation. Nay, I'll carry the beast; bear thou my crossbow."

"We will carry it by turns," then said Gerard, "for 'tis a heavy load; poor thing, how its blood drips. Why did we slay it?"

"For supper and the reward the bailie of the next town shall give us."

"And for that it must die, when it had but just begun to live; and perchance it hath a mother that will miss it sore this night, and loves it as ours love us; more than mine does me."

"What! know you not that his mother was caught

in a pitfall last month, and her skin is now at the tanner's? and his father was struck full of clothyard shafts t'other day, and died like Julius Cæsar, with his hands folded on his bosom, and a dead dog in each of them?"

But Gerard would not view it jestingly. "Why, then," said he, "we have killed one of God's creatures that was all alone in the world — as I am this day in this strange land."

"You young milksop," roared Denys, "these things must not be looked at so, or not another bow would be drawn nor quarrel fly in forest nor battlefield. Why, one of your kidney consorting with a troop of pikemen should turn them to a row of milk pails."

Gerard did not answer, for his ear was attracted by a sound behind him. It was a peculiar sound, too, like something heavy, but not hard, rushing softly over the dead leaves. He turned round with some little curiosity. A colossal creature was coming down the road at about sixty paces' distance.

He looked at it in a sort of calm stupor at first, but the next moment he turned ashy pale.

"Denys!" he cried. "Oh, Denys!"

Denys whirled round.

It was a bear as big as a cart horse.

It was tearing along with its huge head down, running on a hot scent.

The very moment he saw it, Denys said in a sickening whisper:

"THE CUB!"

Oh! the concentrated horror of that one word, whispered hoarsely, with dilating eyes. For in that syllable

it all flashed upon them both like a sudden stroke of lightning in the dark — the trail of blood, the murdered cub, the mother upon them, *and it:* DEATH.

All this in a moment of time. The next, she saw them. Huge as she was, she seemed to double herself (it was her long hair bristling with rage); she raised her head big as a bull's, her swine-sharpened jaws opened wide at them, her eyes turned to blood and flame, and she rushed upon them scattering the leaves about her like a whirlwind as she came.

"Shoot!" screamed Denys, but Gerard stood shaking from head to foot, useless.

"Shoot, man, shoot! Too late! Tree, tree!" and he dropped the cub, pushed Gerard across the road, and flew to the first tree and climbed it, Gerard the same on his side; and as they fled, both men uttered inhuman howls, like savage creatures, grazed by death.

With all their speed one or other would have been torn to fragments at the foot of his tree; but the bear stopped a moment at the cub.

Without taking her bloodshot eyes off those she was hunting, she smelt it all around, and found, how, her Creator only knows, that it was dead, quite dead. She gave a yell such as neither of the hunted ones had ever heard, nor dreamed to be in nature, and flew after Denys. She reared and struck at him as he climbed. He was just out of reach.

Instantly she seized the tree, and with her huge teeth tore a great piece out of it with a crash. Then she reared again, dug her claws deep into the bark, and began to mount it slowly, but as surely as a monkey.

Denys's evil star had led him to a dead tree, a mere shaft, and of no very great height. He climbed faster than his pursuer, and was soon at the top. He looked this way and that for some bough of another tree to spring to. There was none; and if he jumped down he knew the bear would be upon him ere he could recover the fall, and make short work of him. Moreover, Denys was little used to turning his back on danger, and his blood was rising at being hunted. He turned to bay.

"My hour is come," thought he. "Let me meet death like a man." He kneeled down and grasped a small shoot to steady himself, drew his long knife, and clenching his teeth, prepared to jab the huge brute as soon as it should mount within reach.

Of this combat the result was not doubtful.

The monster's head and neck were scarce vulnerable, for bone and masses of hair. The man was going to sting the bear, and the bear to crack the man like a nut.

Gerard's heart was better than his nerves. He saw his friend's mortal danger, and passed at once from fear to blindish rage. He slipped down his tree in a moment, caught up the crossbow, which he had dropped in the road, and, running furiously up, sent a bolt into the bear's body with a loud shout. The bear gave a snarl of rage and pain, and turned its head irresolutely.

"Keep aloof," cried Denys, "or you are a dead man!"

"I care not"; and in a moment he had another bolt ready, and shot it fiercely into the bear, screaming, "Take that, take that!"

He was right; the bear, finding so formidable and noisy a foe behind him, slipped growling down the tree,

rending deep furrows in it as she slipped. Gerard ran back to his tree and climbed it swiftly. But while his legs were dangling some eight feet from the ground, the bear came rearing and struck with her forepaw, and out flew a piece of bloody cloth from Gerard's hose. He climbed, and climbed, and presently he heard as it were in

HE SAW HER BULGE ON BOTH SIDES OF THE TREE

the air a voice say: "Go out on the bough!" He looked, and there was a long massive branch before him, shooting upwards at a slight angle; he threw his body across it, and by a series of convulsive efforts, worked up it to the end.

Then he looked round panting.

The bear was mounting the tree on the other side. He heard her claws scrape, and saw her bulge on both

sides of the massive tree. Her eye not being very quick, she reached the fork and passed it, mounting the main stem. Gerard drew breath more freely. The bear either heard him or found by scent she was wrong; she paused. Presently she caught sight of him. She eyed him steadily, then quietly descended to the fork.

Slowly and cautiously she stretched out a paw and tried the bough. It was a stiff oak branch, sound as iron. Instinct taught the creature this; it crawled carefully out on the bough, growling savagely as it came.

Gerard looked wildly down. He was forty feet from the ground. Death below. Death moving slow but sure on him in a still more horrible form. His hair bristled. The sweat poured from him. He sat helpless, fascinated, tongue-tied.

The bear crawled on. And now the stupor of death fell on the doomed man; he saw the open jaws and bloodshot eyes coming, but in a mist.

As in a mist he heard a twang; he glanced down. Denys, white and silent as death, was shooting up at the bear. The bear snarled at the twang, but crawled on. Again the crossbow twanged, and the next moment the bear was close upon Gerard, where he sat, with hair standing stiff on end and eyes starting from their sockets, palsied. The bough rocked. The wounded monster was reeling; it clung, it stuck its sickles of claws deep into the wood; it toppled, its claws held firm, but its body rolled off, and the sudden shock to the branch shook Gerard forward on his stomach with his face upon one of the bear's straining paws. At this, by a convulsive effort, she raised her head up, up, till he felt her

hot fetid breath. Then huge teeth snapped together loudly close below him in the air, with a last effort of baffled hate. The ponderous carcass rent the claws out of the bough, then pounded the earth with a tremendous thump.

— CHARLES READE.

From "The Cloister and the Hearth."

HELPS TO STUDY

Biographical. — Charles Reade toiled long and hard for recognition in the literary world, which he did not secure until he was about forty years of age.

He was born in 1814 and was the youngest of eleven children of John Reade, an English country squire.

Like his friend, Charles Dickens, he labored to correct the social abuses of the time. He wrote "It's Never Too Late to Mend" to expose the evils of the prison system of England. "Put Yourself in His Place" dealt with the hardships of the laboring man. "Hard Cash" was intended to correct the abuses in the insane asylums, and "Foul Play" was directed against those connected with the merchants' shipping service. His blows struck all the harder because of his ability to weave facts and romance together in an interesting way.

Word Study.

un wa′ry — unguarded, careless.

de′vi ous — winding.

ra pine′ — the act of plundering or seizing forcibly.

baf′fle — to check or defeat.

Düs′sel dorf — a city on the Rhine.

ay — yes.

as sas′sin — one who kills by surprise.

one of your kidney — one of your sort.

con sort′ing with — keeping company with.

co los′sal — gigantic, huge.

di lat′ing — enlarging.
vul′ner a ble — liable to injury.
mas′sive — bulky, heavy.
pal′sied — paralyzed, shaky.
fet′id — having an offensive smell.
league — about three miles.

Notes and Questions. — What reason did Denys give for killing the bear? Relate the conversation that took place about the killing. With which of the men do you agree? Tell what the cub's mother did when she reached its side. How did the men make their escape? Describe the bear's attack on Denys. How did Gerard save his life? Describe the attack on Gerard. Why was the bear so desperate? In what ways did she show skill? Tell how Denys rescued Gerard. Describe the bear's last efforts to reach her foe. Describe the crossbow. Describe the killing of the young bear. Describe the attack by the large bear and the escape of the hunters. Compare this story with Audubon's "Panther Hunt." Do you think both are true stories? Which is the more exciting? Why? Which seems more probable to you? Would a naturalist and a novelist write the same kind of stories? Which is written by a novelist?

CONSERVE YOUR BIRTHRIGHT

The most vital question now before the American people is that of the conservation of our natural resources. Perhaps no other nation has ever been so abundantly endowed with wealth of mine and forest as are the people of the United States, and probably the citizens of no other nation have ever been so careless with their treasures — so prodigal of their birthright.

The next generation of men and women will be made up of the boys and girls now in the public schools of our country, and upon them will devolve the solution of the vital problem of saving from destruction the treasures with which our country is so bountifully blessed.

The young American whose birthright includes the birds of the air, the game of the forest, and the fish of the stream, may be compared to a young man coming into his inheritance. If he cares for his fortunes and is not a spendthrift, his wealth will increase till he can live in comfort or even luxury, and still have enough remaining to transmit to his children. But, on the other hand, if he proves improvident and wasteful, he will not only be impoverished during his own lifetime, but will leave his children paupers.

The American people have long been wasteful of their splendid treasures of mine and forest and stream, always taking from them more than their necessities demanded. Birds which keep insects from destroying vegetation have been wantonly killed by the unrestrained, for his own pleasure; great forests have been set on fire while the careless lumberman has destroyed the young and growing

trees which should have been left to take the place in the future of the great forest trees he fells for the use of man; birds and other game have been ruthlessly destroyed in the mating season; and fish, wantonly dynamited by the thousands.

The American people have wasted their inherited wealth of mine, stream, and forest for more than a century, and only recently have they come face to face with the fact that if this great country of ours is to continue to be a land of plenty, we must conserve our birthright. If we draw from the national bank of our natural resources only just as much as will provide for our comforts, we can enjoy the blessing of a happy life, and still leave ample wealth for those who come after us.

— JOHN H. WALLACE, JR.

HELPS TO STUDY

Word Study.

vi′tal — necessary to life.

con ser va′tion — the act of preserving from decay or destruction.

prod′i gal — wasteful.

birth′right — any right to which a person is entitled by birth.

de volve′ — to pass from one person to another by succession.

trans mit′ — pass on.

ruth′less ly — cruelly, pitilessly.

Notes and Questions. — What is a vital question before the American people? Why? Who must solve this problem? In what way can we make the most of our birthright? Mention some respects in which the American people have been wasteful. What can we do to preserve the birds, fish, and forests? What is our government doing to conserve the forests, birds, and game?

WOODMAN, SPARE THAT TREE

Woodman, spare that tree!
  Touch not a single bough!
In youth it sheltered me,
  And I'll protect it now.
'Twas my forefather's hand
  That placed it near his cot;
There, woodman, let it stand —
  Thy ax shall harm it not!

That old familiar tree,
  Whose glory and renown
Are spread o'er land and sea —
  And wouldst thou hew it down?
Woodman, forbear thy stroke!
  Cut not its earth-bound ties;
Oh, spare that aged oak,
  Now towering to the skies!

My heartstrings round thee cling,
  Close as thy bark, old friend!
Here shall the wild bird sing,
  And still thy branches bend.
Old tree! the storm still brave!
  And, woodman, leave the spot:
While I've a hand to save,
  Thy ax shall harm it not!

— George P. Morris.

HELPS TO STUDY

Word Study.

fore′father — an ancestor.

re nown′ — fame.

hew — to cut with an ax.

for bear′ — to abstain from.

tow′er ing — rising aloft.

heart′strings — a nerve or tendon formerly supposed to brace the heart; hence the deepest affection.

Notes and Questions. — Tell the story that furnished material for this poem. What does the first line of the poem mean? What reasons does the poet give for protecting the tree? Where and by whom was the tree planted? Where had stories about the old tree been told? What scenes of the poet's childhood are recalled in the third stanza? What does he mean by saying "my heart-strings round thee cling"? What were his parting words to the tree and to the woodman?

TO BLOSSOMS

Fair pledges of a fruitful tree,
Why do ye fall so fast?
Your date is not so past,
But you may stay yet here awhile,
To blush and gently smile,
And go at last.

— Robert Herrick.

FACTS ABOUT TREES

We should hesitate a long time before we cut down a tree. It takes many years, sometimes hundreds of years, for a great tree to get its full growth. The ax of the woodcutter can undo all this in an hour. For my own part, it always fills me with sadness to see a monarch of the woods go crashing down, like a stricken giant, tearing through the other trees, and lying prone on the ground. If we must cut trees for firewood or for timber, let us leave some of the most noble to beautify the landscape.

When we destroy the trees, we take away the homes of the birds, and birds are the farmer's best friends. When there are no trees there are few birds, for they have no places to make their nests, and no leafy hiding places to rear their young.

The large trees of a near-by forest protect the young fruit trees of the orchard. They make a screen around the orchard from the strong winds that would tear the limbs and scatter the fruit on the ground. It is beautiful to see a grove of tall trees, standing like sentinels to catch the fierce winds and hold them back from the growing crops, or from the smaller trees. Indeed, we should rather plant protecting trees on the windy side of the farm than cut down those that are already there.

When there are no trees the snows melt rapidly. The water that should sink into the soil and soften it, is carried away in floods. Trees hold back rainwater and feed it slowly to the land. Our river floods are caused in large part by forests being cut away and the water running rapidly in large quantities to the streams.

Trees keep the air moist, and lessen the effects of severe droughts upon the crops. A full-grown elm tree gives out fifteen tons of moisture in twenty-four hours. Think, then, what a whole grove or forest would do, with a gentle breeze to carry this moisture into the neighboring fields. A large sunflower plant gives out three pints

WASTEFUL METHODS OF LUMBERING

of water in one day. A row of these plants not only adds beauty to the yard, but keeps the air from being dry. Every other plant, bush, and tree is doing the same thing, drinking moisture out of the ground, and pouring it into the air. If the air is very dry, and there are no trees to help the growing crop, then the crops are overworked, and shrivel and die.

Of course there are some trees that we must cut for building purposes and for fuel, and also to clear the land

for farming. In the same way we must kill some animals for food. It is the unnecessary cutting of trees, and the wanton killing of birds and animals, that should be avoided. Trees give us lumber for building our houses, and for making furniture. From trees we get fuel for our fires, pulp for making paper, cork, and bark for tanning leather. From the sap of trees we get resin,

PROPER FORESTING

turpentine, oils, and various products for medicines. From trees we also get nuts and fruits for food.

The leaves of trees in grove or forest fall to the ground in the winter and make a thick, spongy carpet. These leaves decay and make the ground very rich in leaf mold. This leaf mold, gathered by the farmers and put on certain crops, makes them grow abundantly. It is a fine fertilizer, and the trees furnish it free.

Let us remember that trees have some useful purpose, and are not to be destroyed without due thought. They add to the beauty of the landscape; they harbor the birds; they protect the orchards and crops; they hold back the water; they moisten the air; they furnish lumber, fuel, food, and medicine; and their leaves are rich in vegetable mold. Therefore, let us take care of the trees.

HELPS TO STUDY

Word Study.

strick′en — struck down.
sen′ti nel — guard.
drought — a long period of dry weather.
wan′ton — reckless, heedless.
pulp — wood fiber ground up with water and chemicals.
tan′ning — the process of converting skins into leather.
res′in — a sticky sap obtained from various trees.
har′bor — to afford shelter and protection.

Notes and Questions. — What questions should we ask before we start to cut down a tree? In what way does the falling of a great tree remind one of "a stricken giant"? In what way are the birds the farmer's friends? How do birds use the trees? In what way do forest trees protect the orchards? How do they protect crops? How do forests prevent river floods? Name some things we get from trees. What is "leaf mold"? Make a list of all the things that trees do for us. How can we get all the fuel and lumber that we need, and still leave enough trees for future generations?

To the Teacher. — Go with the children to a near-by forest and study with them the condition of the trees.

THREE TREES

The pine tree grew in the wood,
  Tapering, straight, and high;
Stately and proud it stood,
  Black-green against the sky.
Crowded so close, it sought the blue,
And ever upward it reached and grew.

The oak tree stood in the field,
  Beneath it dozed the herds;
It gave to the mower a shield,
  It gave a home to the birds.
Sturdy and broad it guarded the farms
With its brawny trunk and knotted arms.

The apple tree grew by the wall,
  Ugly and crooked and black;
But it knew the gardener's call,
  And the children rode on its back.
It scattered its blossoms upon the air,
It covered the ground with fruitage fair.

"Now, hey," said the pine, "for the wood!
  Come live with the forest band.
Our comrades will do you good,
  And tall and straight you will stand."
And he swung his boughs to a witching sound,
And flung his cones like coins around.

"O-ho!" laughed the sturdy oak;
"The life of the field for me.
I weather the lightning stroke;
My branches are broad and free.
Grow straight and slim in the wood if you will,
Give me the sun and the wind-swept hill."

And the apple tree murmured low,
"I am neither straight nor strong;
Crooked my back doth grow
With bearing my burdens long."
And it dropped its fruit as it dropped a tear,
And reddened the ground with fragrant cheer.

And the Lord of the harvest heard,
And he said: "I have use for all;
For the bough that shelters a bird,
For the beam that pillars a hall;
And grow they tall, or grow they ill,
They grow but to wait their Master's will."

So a ship of the oak was sent
Far over the ocean blue,
And the pine was the mast that bent
As over the waves it flew,
And the ruddy fruit of the apple tree
Was borne to a starving isle of the sea.

Now the farmer grows like the oak,
And the townsman is proud and tall;
The city and field are full of folk —
But the Lord has need of all.

— C. H. Crandall.

HELPS TO STUDY

Word Study.

ta′per ing — gradually diminishing towards a point.

state′ly — grand, dignified.

brawn′y — strong, stalwart.

witch′ing — enchanting.

mast — a long round piece of timber raised vertically on the keel of a ship to support the sails.

Notes and Questions. — Describe each of the trees mentioned in the poem. Why did the pine like the wood? Why did the oak prefer "the sun and the wind-swept hill"? What did the apple tree murmur? What uses had the Lord of the harvest for the trees? What was made out of the oak? For what was the pine used? Where was the fruit of the apple tree sent? In what respect is the townsman like the pine and the countryman like the oak?

FOREST TREES

The tree, with its mighty pillar rising straight toward heaven, bears up its leafy arms above the impurities of earth, and supports them aloft in the free air and glorious sunshine. Thus, the tree is an emblem of what a true man should be. A tree is a shelter from the peltings of the storm and the scorchings of the fierce heat. A true man is likewise a refuge for the weak, a shelter for the oppressed — a defense for the defenseless, warding off from them the inroads of selfishness. He who is such a shield is, like the tree, an ornament and a blessing to his native land.

— WASHINGTON IRVING.

THE FRUIT TREE

A fruit tree is a symbol of home and comfort and good cheer. It is the emblem of good works.

By the woodshed or the pump, or against the barn or over the garden fence, the apple tree or pear tree connects the residence with the world of life and space that stretches out to woods and farms. We rest our affections on it, as a midway place between ourselves and our surroundings. It is the warder of the fields and the monitor of the home. It is an outpost of the birds. It feels the first ray of morning sunshine. It proclaims every wind. It drips copiously in the rain.

Its leaves lie on the grass when the year goes down into the long night of winter. It stands its ground fearlessly in pinch of cold and stress of storm. And in the spring its brightening twigs and swelling buds reveal the first pulse in the reviving earth. Every day of the year is in its fabric, and every essence of wind and sun and snapping frost is in its blossom and its fruit.

A PEACH TWIG

I often wonder what must have been the loss of the child that had no fruit tree to shelter it. There are no days like the days under an old apple tree. Every bird of the field comes to it sooner or later. Perhaps a humming bird once built on the top of a limb, and the marks of the old nest are still there. Strange insects are in its knots and wrinkles. The shades are very deep and cool under it. The sweet smells of spring are sweetest there. And the mystery of the fruit that comes out of a blossom is beyond all reckoning, the magic growing week by week until the green young balls show themselves gladly among the leaves — the leaves that hold the tang of summer in them. And who has not watched for the first red that comes on the side that hangs toward the sun, and waited for the first fruit that was soft enough

to yield to the thumb! Verily, the old apple tree carries all the memories of the years.

The worth of a fruit tree is very real, quite beyond any figuring in dollars and pounds. I think we do not know how good a teacher it has been or how much it has steadied the lives of many folk.

And an orchard is only a family of fruit trees. Orchards are also very real, but I hope that we do not lose the feeling of the tree. Our affections cling to trees, one by one; and then the orchard becomes almost a sacred spot. A fruit tree in full load is one of the most marvelous objects in nature. We cannot understand how the work is done, how such abundance is produced, and how such color and substance and flavor and faultless form are derived of the crude elements of soil and sunshine and air. It gives of itself out of all proportion to the care and affection that we bestow on it. It is a very sermon in liberality. It is a great thing that the making of orchards is spreading so rapidly, for it means not only commercial thrift but a growing appreciation of the tender and delicate and refreshing products of the earth. The race renews itself when it does these things.

— L. H. Bailey.

HELPS TO STUDY

Word Study.

sym′bol — that which stands for or represents something else.

ward′er — keeper.

mon′i tor — one who warns or admonishes.

out′post — a post of observation.

co′pi ous ly — plentifully, abundantly.

fab′ric — structure.

es′sence — substance.
tang — a fresh or pungent flavor.
pound — English coin worth nearly five dollars in our money.
lib er al′i ty — generosity.

Notes and Questions. — Why is a fruit tree called an "emblem of good works"? In what sense can a fruit tree be a "warder of the field," and a "monitor of the house"? Of what service are fruit trees to birds? How is every day of the year represented in the tree's structure? What assistance does the tree need in forming its blossoms and fruit? Which side of an apple shows the red first? What value does the author put upon a fruit tree? What does he call an orchard? What does he regard as one of the most marvelous objects in nature? What significance has the making of orchards?

MINE HOST OF "THE GOLDEN APPLE"

A goodly host one day was mine,
A Golden Apple his only sign,
That hung from a long branch, ripe and fine.

My host was the bountiful apple tree;
He gave me shelter and nourished me
With the best of fare, all fresh and free.

I slept at night on a downy bed
Of moss, and my Host benignly spread
His own cool shadow over my head.

When I asked what reckoning there might be,
He shook his broad boughs cheerily: —
A blessing be thine, green Apple Tree!

— THOMAS WESTWOOD.

FOUR APPLE TREES

Many years ago there was a man who wanted to have a beautiful orchard, so he sent for some young trees, knowing that he should not have to wait so long for his orchard if he planted trees which had already had a good start in growing.

Unfortunately, however, the trees arrived just at a time when the man was obliged to leave home for several days. He was afraid the trees would not live unless they were planted very soon, and yet he could not stay to attend to them. Just then a man came along who wanted work.

"Do you know how to set out trees?" asked the owner.

"Yes, indeed," said the other man.

"Then you may stay and set out these young apple trees. I am going to have an orchard, and I have marked the places for the trees with stones."

By-and-by, the owner of the trees came back and went to look at his orchard. He had been gone four days.

"How is this!" said he, "only four trees set out?"

"That is all I had time for," answered the other man. "I dug great holes, so that the roots might be spread out to the farthest tip; I hauled rich earth from the woods, so that the trees might have the best food; I set the trees straight and filled the holes with care. This took all the time, but these four trees are well planted."

"That is too slow a way for me," said the owner. "I can plant the whole orchard in one day."

So he went to work and planted the other trees in his own way. He did not dig the holes large enough or deep enough, and so, many of the little root mouths were broken off when he set the trees into the holes. He did not take pains to get soft, rich earth to fill the holes, and so the trees could not have as good food as they needed.

The poor little trees lived awhile, but they were never very strong, never bore very good apples, and at last were cut down. All that was left of the orchard were the four trees which had been planted with such faithfulness and care.

These four trees are now older than an old man, and have been bearing delicious great apples for many, many years. They stand as a memorial of what it is to do a thing well.

— EMILIE POULSSON.

From "The Child's World." Copyright by the Milton Bradley Co.

HELPS TO STUDY

Word Study.

me mo′ri al — anything that preserves the memory of a person or thing.

Notes and Questions. — Tell how the four trees were planted. Why should the holes be deep? What kind of earth should be put into the holes? What became of the trees that were planted so hurriedly? How far apart should trees be planted? What attention should an orchard receive in winter? What insects are injurious to fruit trees? Why should birds be encouraged to build their nests near orchards?

A WORLD OF BLOSSOMS FOR THE BEE

THE PLANTING OF THE APPLE TREE

Come, let us plant the apple tree.
Cleave the tough greensward with the spade;
Wide let its hollow bed be made;
There gently lay the roots, and there
Sift the dark mold with kindly care,
  And press it o'er them tenderly,
As round the sleeping infant's feet
We softly fold the cradle sheet;
  So plant we the apple tree.

What plant we in this apple tree?
Buds which the breath of summer days
Shall lengthen into leafy sprays;
Boughs where the thrush, with crimson breast,
Shall haunt and sing, and hide her nest;
  We plant, upon the sunny lea,
A shadow for the noontide hour,
A shelter from the summer shower
  When we plant the apple tree.

What plant we in this apple tree?
Sweets for a hundred flowery springs,
To load the May wind's restless wings,
When, from the orchard row, he pours
Its fragrance through our open doors;
  A world of blossoms for the bee,
Flowers for the sick girl's silent room,

For the glad infant sprigs of bloom
  We plant with the apple tree.

What plant we in this apple tree?
Fruits that shall swell in sunny June,
And redden in the August noon,
And drop, when gentle airs come by
That fan the blue September sky;
  While children come, with cries of glee,
And seek them where the fragrant grass
Betrays their bed to those who pass,
  At the foot of the apple tree.

And when, above this apple tree,
The winter stars are quivering bright,
And winds go howling through the night,
Girls, whose young eyes o'erflow with mirth,
Shall peel its fruit by cottage hearth,
  And guests in prouder homes shall see,
Heaped with the grape of Cintra's vine,
And golden orange of the line,
  The fruit of the apple tree.

The fruitage of this apple tree
Winds and our flag of stripe and star
Shall bear to coasts that lie afar,
Where men shall wonder at the view,
And ask in what fair groves they grew;
  And sojourners beyond the sea
Shall think of childhood's careless day,
And long, long hours of summer play
  In the shade of the apple tree.

Each year shall give this apple tree
A broader blush of roseate bloom,
A deeper maze of verdurous gloom,
And loosen, when the frost clouds lower,
The crisp brown leaves in thicker shower.
  The years shall come and pass, but we
Shall hear no longer, where we lie,
The summer's songs, the autumn's sigh,
  In the boughs of the apple tree.

And time shall waste this apple tree.
Oh, when its aged branches throw
Thin shadows on the ground below,
Shall fraud and force and iron will
Oppress the weak and helpless still?
  What shall the tasks of mercy be,
Amid the toils, the strifes, the tears
Of those who live when length of years
  Is wasting this little apple tree?

  "Who planted this old apple tree?"
The children of that distant day
Thus to some aged man shall say;
And, gazing on its mossy stem,
The gray-haired man shall answer them:
  "A poet of the land was he,
Born in the rude but good old times;
'Tis said he made some quaint old rhymes
  On planting the apple tree."

— WILLIAM CULLEN BRYANT.

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HELPS TO STUDY

Word Study.

cleave — cut.

green'sward — green turf.

lea — meadow.

sprig — a small twig or shoot.

Cin'tra — a city in Portugal.

line — meaning the equator.

so'journ er — a dweller for a time.

ro'se ate — like the rose in color.

maze — a confusing network, as of paths or passages.

ver'dur ous — rich in leaves, clothed with green grass.

Notes and Questions. — How does the first stanza convey the idea that great care should be taken in planting a tree? What does the second stanza say about boughs? What pleasure do we get from the blossoms? When do apples redden and drop? What does the poet say about apples in winter time? Where is the fruitage of the apple tree borne? What does each year give to the apple tree? Compare this poem with the preceding selection. Pick out the lines in the poem which suggest to you the most pleasing pictures. What hope does the author express in the next to the last stanza?

THE THREE GOLDEN APPLES

Did you ever hear of the golden apples, that grew in the garden of Hesperides? Ah, those were such apples as would bring a great price if any of them could be found growing in the orchards of nowadays! But there is not, I suppose, a graft of that wonderful fruit on a single tree in the wide world.

In the old, old, half-forgotten times, it was quite a common thing with young persons, when tired of too much peace and rest, to go in search of the garden of the Hesperides. Many of them returned no more; none of them brought back the apples. No wonder that they found it impossible to gather them! It is said that there was a dragon beneath the tree, with a hundred terrible heads, fifty of which were always on the watch, while the other fifty slept.

Once the adventure was undertaken by a hero who had enjoyed very little peace or rest since he came into the world. At the time of which I am going to speak, he was wandering through the pleasant land of Italy with a mighty club in his hand, and a bow and quiver slung across his shoulders. He was wrapt in the skin of the biggest and fiercest lion that ever had been seen, and which he himself had killed. His name was Hercules.

From his cradle he had performed deeds far beyond the might of other men. As a baby he had strangled to death two fierce snakes that thought to devour him. When he was but a stripling, he had killed a huge lion

almost as big as the one whose vast hide he now wore upon his shoulders. The next thing he had done was to fight a battle with an ugly sort of monster, called a hydra, which had no less than nine heads and exceedingly sharp teeth in every one.

Many other wonderful feats he had achieved, too numerous to mention here, and his great deeds had made his name known all over the world. It was not strange that such a hero should set out in quest of the golden apples of the Hesperides.

As he went on his way, he continually inquired whether that were the right road to the famous garden, but none of the country people knew anything about the matter. At length he came to the brink of a river, where some beautiful young women sat twining wreaths of flowers. "Can you tell me, pretty maidens," he asked, "whether this is the right way to the garden of the Hesperides?"

On hearing the stranger's question, they dropped all their flowers on the grass and gazed at him in astonishment. "The garden of the Hesperides?" cried one. "We thought mortals had been weary of seeking it, after so many disappointments."

Hercules then told them who he was, and was glad to know that these fair young girls had heard of the valiant deeds which had cost him so much toil and danger to perform.

"We will give you the best directions we can," said the damsels. "You must go along to the seashore and find out the Old Man of the Sea, and compel him to inform you where the golden apples are to be found. He knows all about the garden of the Hesperides; for

it is situated in an island which he is in the habit of visiting."

Hercules then thanked them, and immediately set forth on his journey. But before he was out of hearing, one of the maidens called after him. "Keep fast hold of the Old One, when you catch him!" cried she, smiling. "Only hold him fast, and he will tell you what you wish to know."

Hercules again thanked her, and pursued his way over hill and dale, and through the solitary woods until, by and by, he heard the sea roaring at a distance. At this sound he increased his speed, and soon came to a beach, where the great surf waves tumbled themselves upon the hard sand. At one end of the beach, however, there was a pleasant spot where some green shrubbery clambered up a cliff. And what should Hercules espy there but an old man, fast asleep!

A strange old man he was; for on his legs and arms there were scales, such as fishes have. He was web-footed and web-fingered, after the fashion of a duck; and his long green beard had more the appearance of a tuft of seaweed than of an ordinary beard. The instant Hercules set eyes on this strange figure, he was convinced that it could be no other than the Old Man of the Sea, who was to direct him on his way. So he stole tiptoe towards him, and caught him by the arm and leg.

Now the Old Man of the Sea had the power of assuming any shape he pleased. When he found himself so roughly seized by Hercules, he immediately changed himself into a stag, which kicked and struggled, but could not escape from the giant grip. Then the stag became a fluttering

sea bird, and this in its turn an ugly three-headed dog that snapped fiercely at the hands which held him. But Hercules would not let him go. In another minute the dog became a huge snake which opened its deadly jaws as if to devour the hero outright.

But Hercules was no whit disheartened, and squeezed the snake so tightly that he soon began to hiss with pain. The Old Man of the Sea could stand this torture no longer, and thought it best to reappear in his own figure.

"Pray, what do you want with me?" he cried, as soon as he could take breath. "Why do you squeeze me so hard? Let me go this moment."

"My name is Hercules!" roared the mighty stranger, "and you will never get out of my clutch, until you tell me the nearest way to the garden of the Hesperides!"

When the old fellow heard who it was that had caught him, he saw that it would be necessary to tell him everything that he wanted to know.

"You must go on, thus and thus," said he, after taking the points of the compass, "till you come in sight of a very tall giant who holds the sky on his shoulders, and the giant will tell you exactly where the garden of the Hesperides lies."

Thanking the Old Man of the Sea, and begging his pardon for having squeezed him so roughly, the hero resumed his journey. After many strange adventures, he came to the shore of a great ocean. Nothing was before him, save the foaming, dashing waves. Here, unless he could walk on the crests of the billows, it seemed as if his journey must needs be at an end.

Suddenly, however, he saw something, a great way off,

gleaming brightly among the waves. It drew near, and Hercules discovered it to be an immense cup or bowl made either of gold or burnished brass. The waves tumbled it onward until it grazed the shore, within a short distance of the spot where Hercules was standing.

On that island stood . . . a giant . . . and appeared to support the sky . . .

Without a moment's delay, he clambered over the brim and slid down on the inside, where he fell fast asleep. When he awoke, he found that the cup had floated across the sea, and was approaching the shore of what seemed to be an island. And on that island stood a giant. Such an intolerably big giant. A giant as tall as a mountain; so vast that the clouds rested about his waist like a girdle, and hung like a hoary beard from his chin.

Most wonderful of all, the giant held up his great hands and appeared to support the sky, which, as far as Hercules could discern through the clouds, was resting upon his head.

Meanwhile the bright cup touched the strand. Just then a breeze wafted away the clouds from before the giant's visage, and Hercules beheld it, with all its enormous features; eyes each of them big as a lake, and a nose a mile long, and a mouth of the same width. It was a countenance terrible from its enormity of size, but sad and weary, even as you may see the faces of many people, nowadays, who are compelled to sustain burdens above their strength.

Poor fellow! He had evidently stood there a long while. An ancient forest had been growing and decaying around his feet; and oak trees, six or seven centuries old, had sprung from the acorns and forced themselves between his toes.

The giant now looked down, and, perceiving Hercules, roared out in a voice resembling thunder: "I am Atlas, the mightiest giant in the world; and I hold the sky upon my head! Who are you down at my feet there?"

"I am Hercules!" thundered back the hero in a voice almost as loud as the giant's own, "and I am seeking for the garden of the Hesperides."

"There is nobody but myself," quoth the giant, "that can go to the garden of the Hesperides and gather the golden apples. If it were not for the little business of holding up the sky, I would make half a dozen steps across the sea and get them for you."

"You are very kind," replied Hercules, "cannot you rest the sky upon a mountain?"

"None of them are quite high enough," said Atlas. "But if you were to take your stand on the summit of the nearest one, your head would be nearly on a level with mine. You seem to be a fellow of some strength. What if you take my burden on your shoulders while I do the errand for you?"

"Very well," answered Hercules, "I will climb the mountain behind you there and relieve you of your burden." Accordingly, the sky was shifted from the shoulders of Atlas and placed upon those of Hercules.

When this was safely accomplished, the first thing the giant did was to stretch himself. Then he slowly lifted one of his feet out of the forest that had grown up around it; then the other, and stepped off into the sea.

Hercules watched the gigantic shape until it faded entirely out of view. By and by the weight of the sky began to be a little irksome to his head and shoulders. He began to wonder how he could ever get rid of his burden if any misfortune were to happen to the giant.

I know not how long it was before, to his unspeakable joy, he beheld the huge shape of the giant on the far-off edge of the sea. At his nearer approach, Atlas held up his hand, in which Hercules could perceive three magnificent golden apples.

"I am glad to see you again," shouted Hercules. "So you have got the golden apples?"

"Certainly," answered Atlas. "I took the finest that grew on the tree, I assure you."

"I heartily thank you for your trouble," replied

Hercules. "And now, as I have a long way to go, will you be kind enough to take the sky off my shoulder again?"

"Why, as to that," said the giant, "I have no fancy for burdening myself with the sky, just now."

Here Hercules grew impatient, and gave a great shrug of his shoulders. It being now twilight, you might have seen two or three stars tumble out of their places.

"Oh, that will never do!" cried Giant Atlas with a roar of laughter. "I have not let fall so many stars within the last five centuries."

"Well," cried Hercules, "the weight is chafing my shoulders. I want to make a cushion of my lion's skin for it to rest upon. Just take the sky upon your head one instant, will you?"

"That is no more than fair, and I'll do it!" quoth the giant. He threw down the golden apples and received back the sky from the head and shoulders of Hercules, upon his own, where it rightly belonged. And Hercules picked up the three golden apples and straightway set out on his journey homeward, without paying the slightest heed to the thundering tones of the giant, who bellowed after him to come back.

And there stands the giant to this day; or, at any rate, there stands a mountain as tall as he, and which bears his name; and when the thunder rumbles about its summit, we may imagine it to be the voice of Giant Atlas, bellowing after Hercules.

— NATHANIEL HAWTHORNE.

From the "Wonder Book."

HELPS TO STUDY

Biographical. — Nathaniel Hawthorne ranks among the greatest prose writers of America. He wrote many interesting stories for young people. The best known of these probably are in the book called "Twice-Told Tales." He was born at Salem, Massachusetts, in 1804.

Word Study.

strip′ling — a youth.
no whit — not a bit.
bur′nish ed — polished.
hoar′y — white or gray with age.
strand — shore.
vis′age — face.
e nor′mi ty — hugeness.
irk′some — wearisome, fatiguing.
per ceive′ — see.
straight′ way — immediately.

Notes and Questions. — Relate some of the feats Hercules had performed. Why were the maidens surprised when Hercules told them what his errand was? Describe the Old Man of the Sea. Does Hawthorne describe the kind of person you would expect an "old man of the sea" to be? Describe Atlas. How does the author give us an idea of the length of time the giant had stood there? Read the different passages that give one an impression of the huge size of the giant. Read those that give an impression of Hercules's fame for muscular strength. Why do you think no one had ever succeeded before in bringing back the golden apples? To what trick did Hercules have to resort to get rid of his burden? How did people of long ago think the sky was supported? What did they conclude had happened when stars fell? What did they think the thunder was?

THE APPLE BLOSSOMS

Have you seen an apple orchard in the spring?
In the spring?
A blooming apple orchard in the spring?
When the spreading trees are hoary
With their wealth of promised glory,
And the mavis pipes his story
In the spring?

Have you plucked the apple blossoms in the spring?
In the spring?
And caught their subtle odors in the spring?
Pink buds pouting at the light,
Crumpled petals baby white,
Just to touch them a delight —
In the spring!

Have you walked beneath the blossoms in the spring?
In the spring?
Beneath the apple blossoms in the spring?
When the pink cascades are falling,

And the silver brooklets brawling,
And the cuckoo bird soft calling,
In the spring?

If you have not, then you know not, in the spring,
In the spring,
Half the color, beauty, wonder of the spring.
No sweet sight can I remember
Half so precious, half so tender,
As the apple blossoms render
In the spring.

— William Wesley Martin.

HELPS TO STUDY

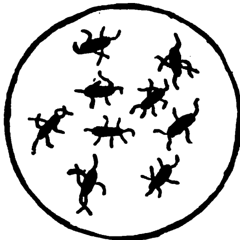
Word Study.

hoar′y — white with bloom.
ma′vis — the song thrush.
pipes — whistles, sings.
subtle (sut′l) — refined.
cas cade′ — a small waterfall.
cuck′oo — a bird of dark plumage so named from its note.

Notes and Questions. — When do apple trees bloom? Describe an apple blossom. Can you give the note of the mavis or song thrush? What does the author mean by "wealth of promised glory"? What does he mean by "pink cascades"? By "silver brooklets"? How is it that the buds are pink while the opened petals are "baby white"? Can you give the note of the cuckoo?

In water and in most other liquids, in the air, on the surface of all common objects, in the soil, and nearly everywhere, are very small living things called "germs." These germs are sometimes spoken of as bacteria, yeasts, and molds. Germs are so small that we cannot see them without a microscope. If we were to put them side by side or end to end, it would take thousands of them to extend an inch.

A great many of these little germs are helpful and valuable to us. When your mother makes light bread, some of the friendly germs cause the bread to rise. Friendly germs also cause the milk to sour so that it can be churned. On the farm, friendly germs cause the dead plants and animals to decay, and help to make the soil rich.



THE TYPHOID FEVER GERM

Then there is a large number of harmful germs. Some of these give us diseases, such as typhoid fever, malaria, smallpox, and diphtheria. We should learn to avoid these, our very worst enemies.

These little unseen bodies are variously shaped. Sometimes they are spherical, or nearly ball-like, sometimes cylindrical, or shaped like a pencil, sometimes they are spiral, or twisted like a spring.

Bacteria increase in number in a most interesting way, each part growing into another germ the size of the first

one. First, the germ's little body divides into halves. Then, after a short time, each one of these parts divides. In this way, you see, it would not be long until we would have a very large number of germs, even if we started with only a few.

Germs or bacteria do better when it is warm and moist, and when they can get good rich food to live on. If they cannot get these conditions, they take a rest. When germs rest the scientist tells us that they are "dormant," which means that they are asleep. In this dormant condition, the germs are somewhat like the little embryo, or baby plant in the seed, which though still alive, is not growing.

We should learn how germs or bacteria may be destroyed so that we may kill such as are harmful to us. We have discovered that they do best when it is warm, but that if the temperature gets too high, it will kill most of them. Boiling water will destroy most bacteria or germ life. Freezing may cause germs to stop growing, but it may not kill them. A great many chemical substances will kill germs. These are called "germicides" or "fumigants."

HELPS TO STUDY

Word Study.

mi′cro scope — an instrument for magnifying objects.

sci′en tist — one learned in science.

chem′i cal — relating to chemistry.

Notes and Questions. — What can you say of germs? What other names have they? What do the helpful germs do? What are the dangers from harmful germs? Describe the shapes of germs. How do they increase? Under what conditions do they thrive? How may germs be destroyed?

PLANT DISEASES

Along the roadside in early spring, just as the dewberries are putting out their leaves, one may often see that the young, tender shoots bear leaves which are bright yellow on the under side; or, later in the season, when the fields of oats are tossing in waves their graceful sprays of flowers, may notice here and there a head which is swelled and distorted, and which presents, in place of the green flowers, only black masses of powder.

Who has not observed a tree trunk with bracket toadstools jutting out from it; or cedar trees, with small and large brown "cedar apples"; or peaches and plums half or wholly decayed and partly covered by a dull greenish felt?

All these things — and many, many more which might be mentioned — are symptoms of plant diseases. And these plant diseases or ailments have their peculiar causes and their proper treatments and remedies just as do almost all forms of sickness which cause suffering and death in man and animals — some of them affecting plants much as animal diseases affect animals.

In order that we may see the truth of this let us compare that dread sickness, consumption in animals, with the disease which causes the death of growing shoots of the apple and the pear — the so-called pear or "fire blight." Consumption is caused by a germ or microbe which lodges most frequently in the lungs, and there multiplies in such numbers as to produce a condition of those

organs which affects the whole animal. The lungs become "tuberculous" — that is, full of sores which render the tissues ineffective. The body wastes away, and a lingering death fastens on the sufferer.

Turning to the fire blight in the pear tree, we cannot but be impressed with its great likeness to consumption.

TREE TRUNK SHOWING BRACKET TOADSTOOLS

Examining the sick or dead branches in winter time, we may find rough, irregular places, usually at the bottom of the limb. If we watch these at the time of flowering, there may be seen oozing out, a soft gummy substance,

and this will be found to be teeming with germs very similar in appearance to tuberculosis germs in animals. They are so small that they can be seen only with a high-power microscope.

On a warm day, the flowers open and wait for the bees and other insects to visit them and bring in pollen from other blossoms, without which kindness of the insects

SPRAYING FRUIT TREES
To remove unfriendly germs

no fruit would probably be set. But these insects also visit the germ-infested gum or mucilage, and, without intending to do so, load up with these deadly blight germs, as well as with pollen, and leave some of them in the heart of many a flower. The flower affords a suitable place for growth and multiplication. From this point of vantage, the germs easily enter the tissues of the flower, and pass downward into the stem and from this into the new shoots, causing death and decay.

The progress of the disease may now be traced by the

darkening of the tender green shoots, and by the death and drying up, one by one, of the leaves, beginning at the top. This destruction the germs accomplish by attacking the most vital part of the stem, the "cambium" or growing layer, without which no tree or herb can live.

RIGHT, A WELL PLANT
LEFT, A SICK PLANT

The tree tries to fight the advance of the decay, and in doing so forms various irregular, cancerous-looking growths as already mentioned. But it succeeds only in a measure, for these very cankers form starting points for fresh infections the next spring.

A DISEASED COTTON BOLL

If you have only a vague idea of these matters, go out "under the open sky and list to Nature's teachings." Walk through a cornfield and you will be sure to find examples of corn smut — young ears enlarged by the presence of a disease-causing fungus which lives principally on the young grains. In the cotton field, likewise, you will notice leaves of the cotton plant that are spotted with little angular brown patches, caused by still another germ. Examine the growing bolls, and you will find open sores and many of them.

With a little training of the eye you will be able to see these deformities and diseases in nature for yourself; and, seeing, you will at once become interested in finding out their preventives or remedies. The wise among us are learning something new every day about the treatment of plant ailments, and we have only to go to them for counsel. The Department of Agriculture at Washington and the state experiment stations are ready to give advice on the subject.

— F. E. LLOYD.

HELPS TO STUDY

Word Study.

dis tort′ed — out of shape.

symp′toms — signs.

mi′crobe — a germ.

tis′sue — masses of cells.

teem′ing with — filled with.

point of van′tage — place of advantage.

can′cer ous — like a cancer.

Notes and Questions. — Mention some symptoms of plant disease. How is consumption caused in animals? With what plant disease may consumption be compared? Describe the way the bees and other insects carry the disease germs to the flower of the pear tree. How may the progress of the disease be noted? What diseases has corn? Cotton? Where should we apply for information regarding remedies?

CLOVER

It enriches the soil as it grows by taking nitrogen through its roots

THE FARMER'S GOOD FRIENDS

We have learned about some of the unseen friends and enemies that we have about us everywhere — in the air, in water, and on all objects. The germs of typhoid fever, tuberculosis, malaria, and smallpox are examples of the unseen enemies that may attack us and give us trouble.

We also know that if a soil is poor it is due to the fact that it is lacking in one, two, or all three of the fertilizing elements — *nitrogen, phosphorus,* and *potassium.* Nitro-

gen is usually the scarcest of these valuable elements, and it is the most expensive if the farmer must buy it. When phosphorus and potash are worth about five cents per pound each, nitrogen is worth about fifteen cents per pound. The nitrogen contained in cottonseed meal and in nitrates is what makes these articles so expensive.

Agricultural scientists, always alert to find out new and valuable things for the farmer, have discovered a little unseen farm helper that does splendid and faithful service if only allowed to assist. This particular germ or bacterial friend can neither plow nor hoe, but he helps just the same. He gets down into the soil and there lives in the roots of certain plants, causing enlargements or growths on the roots. While this little farm hand and his thousands of brothers are building and extending their queer little home, they gather nitrogen (the most valuable and expensive fertilizing element) from the air, and feed it to the plant they are living on, besides storing up in the roots, to be left there in the soil, an extra supply of nitrogen for other crops that may come after. For this reason these germ friends are called nitrogen-gathering bacteria.

These bacteria do not live on all plants nor do they live and develop in the soil unless the conditions are favorable. They are found only on the great class of pod-bearing plants called "legumes." Some of the most important plants of this class are peas, beans, all clovers, and alfalfa. All such plants may be profitably grown for their crop value, as well as for their value as nitrogen gatherers for the soil.

It is interesting to know just how these friends do their work for the farmer. We place a bean seed in the warm

moist soil and soon it begins to grow. As the small bean root starts out from the old mother seed, one of these little bacteria may be present and attack and enter the side of the growing root. If this happens it will cause a small wound or scar on the side of the root. Remember, however, that this means only good for the plant; for while the bacteria may make a wound or scar in the beginning and draw a good portion of its nourishment from the plant in which it is living, it nevertheless fully pays for its board and lodging in the large quantity of nitrogen which it gathers and gives to the plant whereon it makes its home.

THE WART-LIKE GROWTH ON THE ROOTS IS CAUSED BY FRIENDLY GERMS

As the bacteria grow, they divide, and each part divides again until there are thousands of bacteria in the little germ homestead on the side of the plant root. Of course as it thus divides and multiplies, the place where it has attached itself becomes larger. These enlarged homes of the bacteria look somewhat like little warts on the side of the plant roots, and are called "tubercles." When the plant dies, these enlargements decay, and the nitrogen which has been collected there is left in the soil. The bacteria remain in the soil to attach themselves to the roots of the next crop of suitable plants.

It should be borne in mind that there are different bacteria for different crops. For example, the bacteria that cause the tubercular growths on the bean plant would not cause such growths on other plants. In other words, each kind of nitrogen-gathering bacteria is associated with each kind of legume crop.

It may sometimes happen that the proper bacteria are not in the soil, in which case, if the farmer wishes to grow a crop and have it gather nitrogen for him, he will have to supply the bacteria to the soil. This process is called "inoculation."

Sometime when you are in a field, pull up some pea plants and carefully examine the roots to see if they have tubercles on them. Likewise examine clover, alfalfa, and bean roots.

A good crop of cowpeas on the soil will add enough nitrogen to make a splendid crop of cotton. Clover, alfalfa, and other legumes will do the same.

The atmosphere is four-fifths nitrogen; and all the while these little bacterial friends are growing and multiplying on the roots of legumes on the farm, they are busy gathering nitrogen from the air and storing it in the soil for the farmer, thereby making it unnecessary for him to buy this expensive fertilizing element. These little invisible fellows are the most valuable allies, not only of the farmer, but of all mankind.

Intelligent people should feel thankful to that great army of scientific agriculturists who are devoting their lives to finding out for the benefit of mankind such truths as these about the nitrogen gatherer.

HELPS TO STUDY

Word Study.

a lert′ — quick, eager.

bac te′ri al — relating to germs or bacteria.

leg′umes — vegetables such as peas, beans, etc.

home′stead — the home place.

Notes and Questions. — If soil is poor, what is it lacking? Which is the most expensive of the three fertilizer elements? Describe the action of the nitrogen in gathering bacteria. What is meant by "inoculation"? What crops are valuable as nitrogen gatherers. Carefully dig up a plant of clover, alfalfa, vetch, cow-pea, or other legume and find the "tubercles." Why should all farmers plant legumes?

Life is sweet, brother. . . . There's day and night, brother, both sweet things; sun, moon and stars, all sweet things; there's likewise a wind on the heath.

— George Borrow.

SPRING IN CAROLINA

Spring, with that nameless pathos in the air
Which dwells with all things fair,
Spring, with her golden suns and silver rain,
Is with us once again.

Out in the lonely woods the jasmine burns
Its fragrant lamps, and turns
Into a royal court with green festoons
The banks of dark lagoons.

In the deep heart of every forest tree
The blood is all aglee,
And there's a look about the leafless bowers
As if they dreamed of flowers.

Yet still on every side we trace the hand
Of winter in the land,
Save where the maple reddens on the lawn,
Flushed by the season's dawn;

Or where, like those strange semblances we find
That age to childhood bind,
The elm puts on, as if in Nature's scorn,
The brown of autumn corn.

As yet the turf is dark, although you know
That, not a span below,
A thousand germs are groping through the gloom,
And soon will burst their tomb.

Already, here and there, on frailest stems
Appear some azure gems,
Small as might deck upon a gala day,
The forehead of a fay.

In gardens you may note amid the dearth
The crocus breaking earth;
And near the snowdrop's tender white and green,
The violet in its screen.

But many gleams and shadows needs must pass
Along the budding grass,
And weeks go by, before the enamored South
Shall kiss the rose's mouth.

Still there's sense of blossoms yet unborn
In the sweet airs of morn;

One almost looks to see the very street
Grow purple at his feet.

At times a fragrant breeze comes floating by,
And brings, you know not why,
A feeling as when eager crowds await
Before a palace gate

Some wondrous pageant; and you scarce need start
If from a beech's heart,
A blue-eyed Dryad, stepping forth, should say,
"Behold me! I am May!"

— Henry Timrod.

HELPS TO STUDY

Word Study.

pa′thos — sadness.
a glee′ — full of gladness.
sem′blances — resemblances.
span — a hand's length.
ga′la day — holiday, festival.
fay — fairy.
dearth — scarcity, bareness.
en am′ored — deeply in love.
pag′eant — a great parade in costume.
Dry′ad — a wood fairy.

Notes and Questions. — How does the jasmine burn? In what ways do the lagoons look like royal courts? How does the maple redden? What is meant by the "blood" in the heart of every forest tree? What makes the elm trees look brown in the early spring? When do the roses bloom? What flowers herald the coming of spring in your community? What flowers mentioned in the poem do you know?

A SPLENDID ACRE

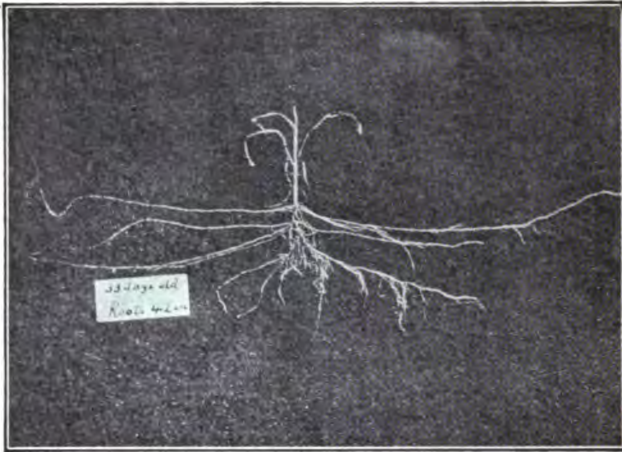
CORN

I

The Corn Crop of the South

Corn is the greatest grain crop for man and beast that we can raise on the farm, since for the time and effort devoted to it, it will produce more food then any other.

The people of the South have been so accustomed to purchase a large part of their corn supply from the "Corn



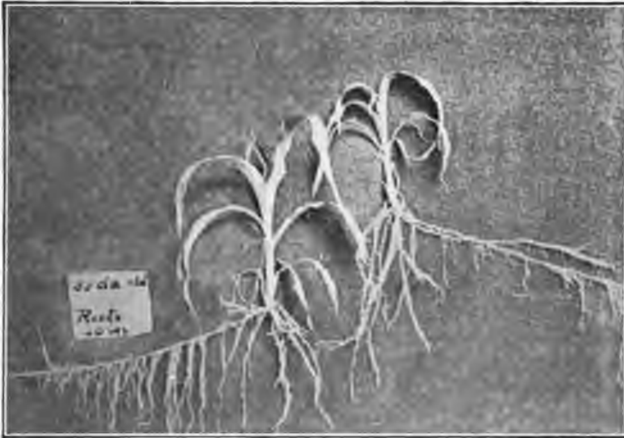
CORN ROOTS 33 DAYS OLD, 42″ LONG

Belt," that they have almost come to the conclusion that this grain is not well adapted to the South and cannot be grown successfully in the Southern climate.

In the last few years, however, the large number of demonstrations made and the remarkable yields secured by Southern farmers, especially by members of the Boys' Corn Clubs, show clearly that corn is well adapted to this section, and can be grown profitably. As a matter of fact, corn is a native of the semi-tropical climate, and would thrive better in the South than in any other section, if properly treated.

The very low yields of corn in the South during the past have been due to poor preparation of the seed bed, poor seed, and to improper cultivation of the crop.

In the first place, in the preparation of the soil we have



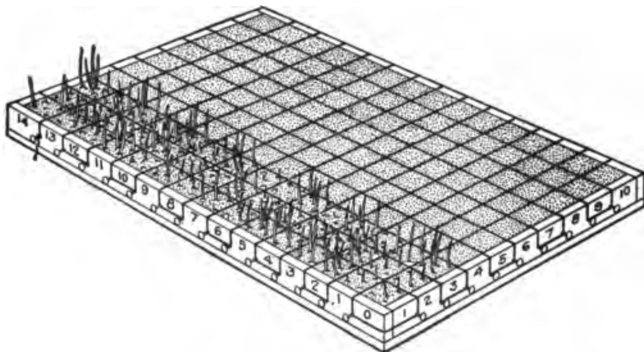
CORN ROOTS 33 DAYS OLD, 20″ LONG

underestimated the importance of the root system of the plant. We have not made an effort to incorporate enough decaying vegetable matter, or humus, in our soil to make it loose and porous so that the corn roots can penetrate it, and so that it will hold plenty of moisture.

It has been found by a number of experiments that corn roots sometimes grow from two to four feet deep in well-prepared soil, and that most of them grow from four to eighteen inches below the surface. An experiment made by one station showed that when the corn was three feet high, the roots had reached down into the soil two feet. An experiment at another station showed that eighteen days after the corn was planted some of the roots had penetrated as deep as twelve inches into the soil, and had spread out on each side eighteen inches. These experiments all show the very great importance of thoroughly preparing the seed bed so that the roots will have

the best opportunity to grow and develop and to take in food and moisture for the plant.

As soon as the corn is up, or even before it is up, we should begin to stir the soil about it. One of the main purposes of cultivating a crop is to save the moisture. We have learned that by stirring the soil lightly on top, a soil mulch may be formed that will, to a great extent, prevent the moisture from evaporating from the soil and being lost. It requires seven hundred and eighty-five



A SAND TRAY FOR TESTING CORN: SEVEN DAYS AFTER PLANTING

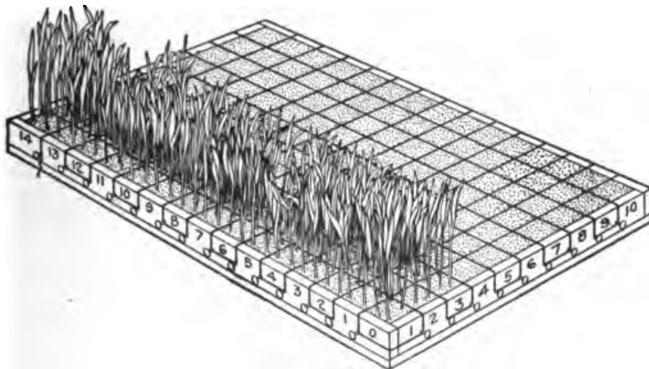
tons of water to make fifty bushels of corn, so you can see how very important it is for the plant to have plenty of water.

If the soil becomes hard and compact, it is a good plan to give the corn one good deep cultivation with some plow that will go down and break up the soil. After this, as the corn gets larger, it should have very frequent cultivations with some implement that stirs the soil near the surface, but does not go deep enough to disturb or injure the roots. Remember that the roots are exceed-

ingly important to the life of the plant as they take up for it all of the moisture and most of the plant food that it uses.

Sometimes we fail to get a good growth of corn and the yield is small, because the seeds do not germinate well. To avoid failure from this cause, the seed corn should be tested before planting.

A simple method of testing seed corn is to place the ear on a table and remove half a dozen kernels from different parts of the ear for experimental germination. Each ear should be numbered and its number should be placed in the seed-testing box where the kernels taken from it are placed for germination.



A SAND TRAY FOR TESTING CORN: TWELVE DAYS AFTER PLANTING

A good seed testing box may be made from an ordinary box from four to five inches deep, and as large as is necessary to accommodate kernels from all the ears. The box should be filled with several inches of light, moist soil which is then marked off into three or four inch squares.

In these squares should be planted the kernels to be tested. The box should be set in a warm place and the soil kept moist. In a few days, when the corn begins to germinate, it will be an easy matter to tell which ears will furnish good seed.

II

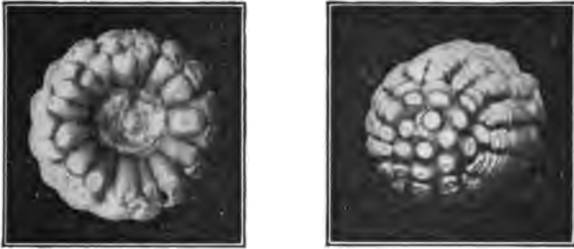
The Improvement of Corn by Seed Selection

Have you ever noticed how much difference there is in corn plants? Some are tall, some medium, and some low in height. On some stalks the leaves or blades are regular, large, long, and well developed, while on others they are narrow, short, and poorly developed. In some cases you will observe the ears growing several feet from the ground; in others, near the ground. Some stalks bear two ears, some just one, and others, no ear at all.

ON RIGHT, POOR PLANT
ON LEFT, GOOD PLANT

The ears also are very different. We find them long or short and well or poorly covered with shuck or husk. Some ears have long grains and some have short ones. In some cases the cob is well covered at both ends with grains, while in others it is poorly covered. When you are in a cornfield again, study the corn carefully and notice all these differences.

The corn plant like all other plants is very easily improved by seed selection. If we will carefully select seed

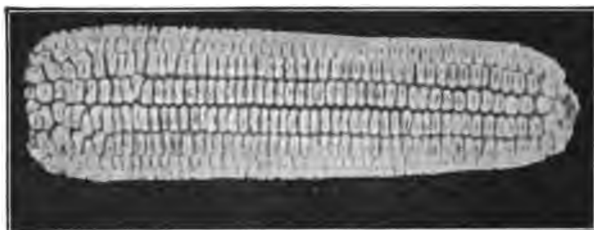


THE ROWS SHOULD RUN OUT TO BOTH ENDS OF THE COB

corn from year to year, it is possible to increase the yield. The work of selecting seed corn is exceedingly interesting, and it does not necessitate the expenditure of much time or money.

We should begin our selection of seed corn in the field where we can study the stalk or plant as well as the ears. Early in the fall, just about the time the corn begins to mature, we should go through the cornfield and mark those plants from which we wish to select seed.

The state experiment stations and the United States Department of Agriculture have been studying seed corn for a great many years. They tell us that the best plant to select from, is a good, strong, well-developed plant with plenty of leaves or foliage. The plant should be of medium height and should have two good ears on it. It is much better if these ears are from three and one-half to four feet from the ground. The ear stalk or shank should be of medium length, and when the ear is mature the shank should curve over so that the tip of the ear will point downward. The ear should be well covered, over the end, with shuck or husk for protection. The best ear from these two-eared plants should be selected and



THE COB SHOULD BE OF MEDIUM SIZE

carefully stored away until planting time the following spring.

An ear of corn should be of uniform circumference from butt to tip, or with a very slight taper. This gives uniform space for the kernels, allowing them to be about the same size on all parts of the ear. If the ear tapers too much, some rows will either run out, or else the grains will grow gradually smaller and shorter as the tip is approached. About eight and a half to nine inches is a good length for the ear, and seven and a half to eight inches — measured about three inches from the large end — is a good girth when there are two ears to the plant.

The cob should be of medium size and length. The rows of corn on the cob should be straight or nearly so. There should be the same number of rows at the small end of the ear as there are at the large end of it. The furrows or lines between the rows or grains should be very small, that is, the kernels should fit close together. The rows should run well out to both ends of the cob. In other words, the cob should be entirely covered with corn with little or no space between kernels. The kernels, or grains of corn, should be of good length and should be wedge shaped.

HELPS TO STUDY

Word Study.

in cor′po rate — made a part of.
po′rous — full of pores, loose.
ger′mi nate — sprout, start to grow.
ex pend′i ture — act of paying out money.
ta′per — to end in a point.
girth — measure around the middle.

Notes and Questions. — Why has the South had such low yields of corn? How deep do corn roots go in the soil? How much water does it require to make fifty bushels of wheat? Describe a seed-testing box and its use.

Describe the difference in ears of corn. Describe the method of seed selection. Describe a good ear of seed corn. Make a seed tester and use it for a tester in the school. Bring several ears of corn and compare them with the description in the text.

THE CORN SONG

Heap high the farmer's wintry hoard!
Heap high the golden corn!
No richer gift has Autumn poured
From out her lavish horn!

Let other lands, exulting, glean
The apple from the pine,
The orange from its glossy green,
The cluster from the vine;

We better love the hardy gift
Our rugged vales bestow,
To cheer us when the storm shall drift
Our harvest fields with snow.

Through vales of grass and meads of flowers
Our plows their furrows made,
While on the hills the sun and showers
Of changeful April played.

We dropped the seed o'er hill and plain
Beneath the sun of May,
And frightened from our sprouting grain
The robber crows away.

All through the long, bright days of June
Its leaves grew green and fair,
And waved in hot midsummer's noon
It's soft and yellow hair.

And now, with autumn's moonlit eves,
Its harvest time has come,
We pluck away the frosted leaves,
And bear the treasure home.

There, when the snows about us drift,
And winter winds are cold,
Fair hands the broken grain shall sift,
And knead its meal of gold.

Let vapid idlers loll in silk
Around their costly board;
Give us the bowl of samp and milk,
By homespun beauty poured!

Where'er the wide old kitchen hearth
Sends up its smoky curls,
Who will not thank the kindly earth,
And bless our farmer girls!

Then shame on all the proud and vain,
Whose folly laughs to scorn
The blessing of our hardy grain,
Our wealth of golden corn!

Let earth withhold her goodly root,
Let mildew blight the rye,
Give to the worm the orchard's fruit,
The wheat field to the fly:

But let the good old crop adorn
The hills our fathers trod;
Still let us, for his golden corn,
Send up our thanks to God!

By permission, Houghton Mifflin Co. — JOHN G. WHITTIER.

HELPS TO STUDY

Word Study.

hoard — store, supply.

poured from out her horn — produced.

lav′ish — full, generous.

ex ult′ing — rejoicing.

eves — evenings.

knead — mix.

vap′id — spiritless, empty-headed.

samp — coarse hominy.

Notes and Questions. — How had Whittier learned about the objects and scenes described in this poem? Do you think he enjoyed thinking and writing about them? Why? What is meant by "glossy green"? "Hardy gift"? "Rugged vales"? Why is April called changeful? What was the "soft and yellow hair"? What was broken grain, and why so called? What is meant by costly board? Explain what is meant by "homespun beauty." Have you ever observed "smoky curls" as described by the poet?

For biography see p. 51, Book Four.

The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose. It shall blossom abundantly, and rejoice even with joy and singing.

— The Bible.

GREEN THINGS GROWING

Oh, the green things growing, the green things growing,
The faint sweet smell of the green things growing!
I should like to live, whether I smile or grieve,
Just to watch the happy life of the green things growing!

Oh, the fluttering and the pattering of those green things
growing!
How they talk each to each, when none of us are know-
ing;
In the wonderful white of the weird moonlight
Or the dim dreamy dawn when the cocks are crowing.

I love, I love them so, — the green things growing!
And I think that they love me, without false showing;
For by many a tender touch, they comfort me so much,
With the soft, mute comfort of the green things growing.

— DINAH MULOCK CRAIK.

HELPS TO STUDY

Word Study.

weird — strange, unearthly.

mute — dumb, silent.

Notes and Questions. — Why do we like to see "green things growing"? What is the fancy expressed in the second stanza? What effect does the touch of growing things have upon us?

For biography see p. 269, Book Four.

COTTON

I

The Culture of Cotton

It grows in a dazzling ample land
Of measureless breadth and room —
And the wealth of a splendid tropical sun
Dowers this cotton bloom.

Cotton prefers a warm, well-drained soil, but will grow and do fairly well on almost any soil which is not too wet, in the "cotton belt." A large part of the world's supply of cotton is grown on a medium, well-drained, loam soil.

In preparing for a cotton crop it is usually desirable to remove all old stalks from the field. The young cotton plant is very delicate and tender, and any large amount of old cotton or corn stalks or other coarse litter might seriously interfere with the early cultivation of the plant. This can be done by means of a stalk cutter.

If a stalk cutter is not available, the cotton stalks may be broken down on a cold day with a stick, or the corn stalks may be cut, raked into piles, and burned. If the plowing is done in the fall and with a large plow, all of these old stalks should be turned under to decay before spring. This is better, as the decaying plants would add humus to the soil.

Most of the land planted in cotton is "bedded" in February and March. In some cases the soil is first broken broadcast and then bedded. This method is best, especially if the breaking can be done in the fall or early winter. This gives the soil the benefit of freezing and thawing.

The average depth to which the land is now plowed is from three to four inches, but it would be far better to get a good, deep, well-prepared seed bed for the cotton. For the very best results, the plowing should be from six to twelve inches deep. The process of deepening the soil, though, should be a gradual one, the plowing going one to two inches deeper each year until the desired depth is reached.

Cotton rows vary in width from three to five feet according to the fertility of the soil and the variety of cotton used. On poor uplands where the plants grow small, the rows are usually three to three and a half feet apart; but on rich bottom land, where the plants grow large, they may be from four to five feet apart.

There are some varieties of cotton with very short limbs, called "cluster" varieties. When these varieties are used, the rows may be made close together.

When commercial fertilizer is used, part or all of it is put

down and covered with the soil, the remainder of it, if it is not all applied at first, is put down along the side of the rows after the cotton has grown to some height.

The beds for planting the seed are usually made by throwing four or more furrows together with a turnplow. In order to prevent the beds from being too high for planting, they may be afterwards dragged down with a harrow, and the seed planted on the low bed. Most

A "PLANTER"

farmers find it best to plant on a low bed or on a nearly level soil.

Cotton "planters" are used to distribute the seed. A "planter" consists of a hopper or box to hold the seed, with an opening in front, and a board or roller to cover the seed. In the hopper or box is an arrangement for stirring or agitating the seed to cause them to pass out through the opening. The seed fall in a constant stream. There are some planters which drop the seed in hills at

regular distances. Planting may be done as early as March in the southern part of the cotton belt, in April in the central part of the cotton area, and as late as May in the northern part of it. The amount of seed planted to the acre varies from one to two bushels.

Some farmers find it a good plan to run a "weeder" or a spike-toothed harrow across the bed just before the

CULTIVATING COTTON

cotton comes up, and again, soon after it is up. This is easily and rapidly done and serves as a cultivation for the crop.

After the plants are up, a side harrow or a turnplow or some other suitable implement is run on each side of the row. If the turnplow is used, the "wing" or mold board is turned *from* the row. This loosens the soil and works it away from the plants on each side of the row, so as to reduce the labor in chopping.

The first time the hoe is used, the work is spoken of as "chopping." In this process the plants are thinned out to the proper distances in the row. Usually several plants are left in a bunch to be finally thinned out at a later hoeing to as few plants as are desired. The custom is usually to leave one or two plants in a hill with a distance of from eight to twelve inches between the hills, but it would be best to leave only one plant in a hill with a distance of at least fifteen or twenty inches between the plants.

The remainder of the cultivations are ordinarily done with a "scrape" or some cultivator that stirs the soil to a depth of a few inches and kills the weeds.

II

Cotton Harvesting

Of all the beautiful sights of harvest time, the cotton field is the most beautiful. The glistening acres that lie under the sun are white with the ready fiber which the sturdy plants have flung out like banners to the breeze. The creamy cups of new-blown flowers here and there nestle among the still, green leaves, and, flecking the whole with crimson, dying blossoms droop their heads and make ready to depart. Over all is the golden glow of the Indian summer sun, and, threading the sunlight, the wings of a mocking bird.

It is good to be alive in the harvest time. It is good to be alive and in the South when the fields are white about us, and the sun is smiling down upon us.

COTTON HARVESTING

But I did not mean to talk about the beauty of Southern cotton fields; I want to tell you something about the harvesting of cotton that will be of value to you.

In the lower part of the Southern states the cotton bolls mature and begin to open in August, and cotton picking usually begins in the latter part of August or early in September. Most of the crop is gathered by December.

The most tedious and perhaps the most expensive part of cotton raising is the picking of the crop. The price for picking varies from thirty-five cents in the early part of the season to one dollar in the latter part, for each one hundred pounds of seed cotton. Farmers usually estimate that the value of the seed will be about equal to the expense of gathering the crop. A good worker can pick from one hundred and fifty to two hundred pounds of seed cotton a day.

No machine for picking cotton has ever yet been perfected, but the South is looking to the time when some second Eli Whitney will arise who will solve the problem of gathering this important crop.

The cotton may be carried directly to the gin from the field, or it may be stored in the field in a pen, or at home in a cotton house until the rush of the picking season is over, when it can be hauled to the gin.

At the gin the cotton is "ginned," that is, the seed and the lint are separated. The lint is then packed into bales weighing about five hundred pounds each, and the seeds are either sold or carried home to be used as fertilizer for the land, or as feed for stock.

If the price offered at the time of harvesting is satisfactory, the cotton is usually sold at once; if not, it is carried home and stored, or placed in a cotton warehouse until the price advances.

Cotton bales absorb very little moisture, but, nevertheless, they should not be left to the open weather, as the outer layer of cotton will be damaged. If left in the open, the bales should be placed on end and should rest on planks, rails, or timbers of some kind so as to be off the ground. They should also be covered over for protection from the rain.

The farmer will find a merchant, banker, or cotton buyer in almost any near-by town. If the cotton is to be exported, it is usually sent to a "compress" where it is subjected to very great pressure, the size of the bale being greatly reduced.

III

Cotton Seed

Admiring the soft, beautiful, downy cotton fiber in the boll, we forget that inside this fiber are the wonderful little cotton seeds. In each lock there may be found from six to twelve seeds and in each boll, from twenty-eight to fifty. Sometimes when you are out in a cotton field, count the number of seeds in a lock and the number in a boll. Most cotton seeds have a kind of fuzz or down on them even after they are ginned, but there are varieties or kinds of cotton which turn out a black seed, as the Peterkin variety.

In ginning, enough cotton to make a bale of lint weighing five hundred pounds will usually yield one thousand pounds of seed. A few years ago cotton seed were not thought to be useful except to plant, to feed to stock, or to put into the soil as fertilizer. I can remember helping to operate a gin a few years ago; it frequently happened that farmers would bring their cotton to the gin, have it ginned, baled, and hauled away, and would leave the seed behind. The seed sometimes accumulated in such large quantities that they were in the way, and we would have to stop the gin and remove them.

Now, however, since we have learned to extract the oil, leaving the meal or cake in condition for either fertilizer or stock feed, and the hulls available for coarse stock feed, cotton seed have become valuable.

The value of this by-product of cotton to the farmers of the South has been great in the past few years, and increases from year to year. In 1908 the Bureau of Census

showed that the annual cotton seed product of the South was worth more than ninety million dollars. The greater portion of this ninety million dollars of value was, only a few years ago, unrecognized and permitted to go to waste.

When the seed are carried to the oil mill, they are usually first put through a process by which the lint is removed from them. This product is spoken of as "linters" after it is taken off the seed, and is used for cotton padding and various other purposes. Then the seed go into the mill, and are reduced to oil, cottonseed meal, cottonseed cake, and cottonseed hulls. Probably at least half of the cottonseed crop of the South is annually manufactured into the above products. The remainder of the seed crop is used for planting, for fertilizers, and for stock feed.

HELPS TO STUDY

Word Study.

dow′ers — enriches.

hu′mus — vegetable matter.

Notes and Questions. — Describe the preparation of land for cotton. How deep should the plowing be done? Describe the making of the cotton bed. Describe the "planter." When is cotton planted? How is it cultivated? Describe "chopping."

What can you say of cotton picking? How are lint and seed separated? What can you say about protecting baled cotton?

What can you say about the number of seed in a cotton boll? How was cotton seed once considered? What is now done with it? Describe the process of making cottonseed oil. Of what use is cottonseed oil? What effects would the invention of a successful cotton-picking machine have in the South?

LINCOLN ON THE FARM

Squire Josiah Crawford was seated on the porch of his house in Gentryville, Indiana, one spring afternoon when a small boy called to see him. The Squire was a testy old man, not very fond of boys, and he glanced up over his book, impatient and annoyed at the interruption.

"What do you want here?" he demanded.

The boy had pulled off his raccoon-skin cap and stood holding it in his hand while he eyed the old man.

"They say down at the store, sir," said the boy, "that you have a 'Life of George Washington.' I'd like mighty well to read it."

The Squire peered closer at his visitor, surprised out of his annoyance at the words. He looked the boy over, carefully examining his long, lank figure, his tangled mass of black hair, his deep-set eyes, and large mouth. He was evidently from some poor country family. His clothes were homemade, and the trousers were shrunk until they barely reached below his knees.

"What's your name, boy?" asked the Squire.

"Abe Lincoln, son of Tom Lincoln, down on Pigeon Creek."

The Squire said to himself, "It must be that Tom Lincoln who, folks say, is a ne'er-do-well and moves from place to place every year because he can't make his farm support him." Then he said aloud to the boy, "What do you want with my 'Life of Washington'?"

"I've been learning about him at school, and I'd like to know more."

The old man studied the boy in silence for some moments; something about the lad seemed to attract him. Finally he said, "Can I trust you to take good care of the book if I lend it to you?"

"As good care," said the boy, "as if it was made of gold, if you'd only please let me have it for a week."

His eyes were so eager that the old man could not withstand them. "Wait here a minute," he said and went into the house. When he returned he brought the coveted volume with him, and handed it to the boy. "There it is," said he; "I'm going to let you have it, but be sure it doesn't come to harm down on Pigeon Creek."

The boy, with the precious volume tucked tightly under his arm, went down the single street of Gentryville with the joy of anticipation in his face. He could hardly wait to open the book and plunge into it. He stopped for a moment at the village store to buy some calico his stepmother had ordered and then struck into the road through the woods that led to his home.

The house which he found at the end of his trail was a very primitive one. The first home Tom Lincoln had built on the Creek when he moved there from Kentucky had been merely a "pole-shack" — four poles driven into the ground with forked ends at the top, other poles laid crosswise in the forks, and a roof of poles built on this square. There had been no chimney, only an open place for a window and another for a door, and strips of bark and patches of clay to keep the rain out. The new house was a little better; it had an attic, and the first floor was

divided into several rooms. It was very simple, however; only a big log cabin.

The boy came out of the woods, crossed the clearing about the house, and went in at the door. His stepmother was sitting at the window sewing. He held up the volume for her to see. "I've got it!" he cried. "It's the 'Life of Washington,' and now I'm going to learn all about him." He had barely time to put the book in the woman's hands before his father's voice was heard calling him out-of-doors. There was work to be done on the farm; the rest of that afternoon Abe was kept busily employed, and as soon as supper was finished his father set him to work mending harness.

At dawn the next day the boy was up and out in the fields, the "Life of Washington" in one pocket, the other pocket filled with corn dodgers. Unfortunately he could not read and run a straight furrow. When it was noontime he sat under a tree, munching the cakes, and plunged into the first chapter of the book. For half an hour he read and ate, then he had to go on with his work until sundown. When he got home he ate his supper standing up, so that he could read the book by the candle that stood on the shelf. After supper he lay in front of the fire, still reading and forgetting everything about him.

Gradually the fire burned out, the family went to bed, and young Abe was obliged to go up to his room in the attic. He put the book on a ledge on the wall close to the head of his bed, so that nothing might happen to it. During the night a violent storm arose, and the rain came through a chink in the log walls. When the boy woke

he found that the book was a mass of wet paper, the type blurred, and the cover beyond repair. He was heart-broken at the discovery. He could imagine how angry the old Squire would be when he saw the state of the book. Nevertheless he determined to go to Gentryville at the earliest opportunity and see what he could do to make amends.

The next Sunday morning found a small boy standing on the Squire's porch with the remains of the book in his hand. When the Squire learned what had happened he spoke his mind freely. He said that Abe did not know how to take care of valuable property, and promised never to lend him another book as long as he lived. The boy faced the music, and when the angry tirade was over, said that he should like to shuck corn for the Squire and in that way pay him the value of the ruined volume. Mr. Crawford accepted the offer and named a price far greater than any possible value of the book; and Abe set to work, spending all his spare time in the next two weeks shucking the corn and working as chore boy. So he finally succeeded in paying for the ruined "Life of Washington."

This was only one of many adventures that befell Abraham Lincoln while he was trying to get an education. His mother had taught him to read and write, and ever since he had learned he had longed for books to read.

One day he said to his cousin Dennis Hanks, "Denny, the things I want to know are in books. My best friend is the man who will get me one."

Dennis was very fond of his younger cousin, and as soon as he could save up the money he went to town and

bought a copy of "The Arabian Nights." He gave this to Abe, and the latter at once started to read it aloud by the wood fire in the evenings. His mother, his sister Sally, and Dennis were his audience. When he came to the story of Sindbad the Sailor, Abe laughed. Dennis, however, could not see the humor. "Why, Abe," said he, "that yarn's just a lie."

"Perhaps so," answered the small boy, "but if it is, it's a mighty good lie."

As a matter of fact Abe had very few books. His earliest possessions consisted of less than half a dozen volumes — a pioneer's library. First of all was the Bible, a whole library in itself, containing every sort of literature. Second was "Pilgrim's Progress," with its quaint characters and vivid scenes told in simple English. "Æsop's Fables" was a third, and introduced the log-cabin boy to a wonderful range of characters — the gods of mythology, the different classes of mankind, and every animal under the sun; and fourth was a history of the United States, in which there was the charm of truth, and from which Abe learned valuable lessons of patriotism.

He read these books over and over, till he knew them by heart. He would sit in the twilight and read a dictionary as long as he could see. He could not afford to waste paper upon original compositions; so as he sat by the fire at night he would cover the wooden shovel with essays and arithmetical problems, which he would shave off, and then begin again.

The few books he was able to get made the keen-witted country boy anxious to find people who could answer his questions for him. In those days many men — clergy-

men, judges, and lawyers — rode on circuit, stopping overnight at any farmhouse they might happen upon. When such a man would ride up to the Lincoln clearing he was usually met by a small boy who would begin to fire questions at him before he could dismount from his horse.

— Rupert Sargent Holland.

From "Historic Boyhoods."

HELPS TO STUDY

Word Study.

tes′ty — inclined to be cross.
rac coon′ skin cap — a cap made of the fur of the raccoon.
peered — looked at intently.
with stand′ — hold out against.
cov′et ed — much desired.
an tic i pa′tion — looking forward to.
prim′i tive — rough, simple.
corn dodgers — a soft bread made of corn meal.
a mends′ — repairs, reparation.
ti rade′ — abusive language.

Notes and Questions. — Tell the story of how Lincoln secured the loan of a book. What book was it? What happened to it? What other books did he have? What characteristics of Lincoln does this story bring out? What qualities shown in his childhood contributed to his success in later life, do you think? What do you learn from this story of his early home surroundings? What do you know of Lincoln's after life?

ALFALFA

The story of alfalfa growing in the rich lime lands of the South is a story of success — and a wonderful story it is, too. But alfalfa is not a success on all soils and under all conditions. To grow best it must have a deep, rich, well-drained, lime soil. If the farmer does not have these soil conditions on his farm, he will have to make them, or it will be useless to plant alfalfa.

There are some sections of the South that are well adapted to alfalfa growing. In the central part of Alabama there is a strip of black lime land, commonly known as the "Black Belt," where alfalfa is remarkably successful unless the soil has been badly worn by the continuous growing of cotton. Areas of land similar to this are found in Mississippi, Louisiana, Texas, Arkansas, and Oklahoma.

This crop may be grown to some extent in other sections of the South where the soil is carefully drained, thoroughly plowed, and heavily manured and limed; but preparing to grow the crop where the land is not naturally well suited for it is an expensive process, and some other hay crop might pay better.

If you ever try to grow this crop, you will need to prepare the seed bed a little better than you have ever prepared a seed bed before. It is a good plan to begin six months or a year in advance, and to plant the land in cowpeas. The cowpeas should be planted in rows and cultivated. This will kill all weeds and grass and the peas will enrich the soil. Just before the alfalfa is sown, put on several loads of barnyard manure, unless the land is already rich. Break the soil well and deep. This breaking should be done long enough before planting to allow the soil to settle again slightly. Before the seeds are sown, harrow and reharrow until the top soil is fine and loose.

The seed should be sown broadcast at the rate of twenty to thirty pounds per acre, and covered lightly with a harrow. A good time for planting is either the early fall or the early spring.

The crop should be cut for hay when half or more of

the plants have put on purple flowers. Another good way to tell when alfalfa is ready to be cut is to look around the roots, just at the top of the ground, for little white shoots. When a number of these appear, the hay is ready for cutting.

When the crop is healthy, and the rains are good, alfalfa may be cut as often as six times during one season, but four cuttings is a good average.

Alfalfa is the king of hay plants. Where it can be grown successfully, it will produce more stock feed of better quality than any other plant. All kinds of stock like it. It is said that animals will turn from almost any other food to eat alfalfa.

HELPS TO STUDY

Notes and Questions. — What kind of soil is best suited for alfalfa? How should the soil be prepared for planting? Describe the proper planting of alfalfa. How can you tell when it is ready for cutting? Why is it such a good forage crop? Is alfalfa grown in your community? Bring a specimen to school with as much of the root as you can dig up. Note the exceedingly long roots. Are there tubercles on the roots?

A SONG OF CLOVER

I wonder what the Clover thinks,
Intimate friend of Bobolinks,
Lover of Daisies slim and white,
Waltzer with Buttercups at night;
Keeper of Inn for traveling Bees,
Serving to them wine dregs and lees,
Left by the Royal Humming Birds,
Who sip and pay with fine-spun words;
Fellow with all the lowliest,
Peer of the gayest and the best;
Comrade of winds, beloved of sun,
Kissed by the Dewdrops, one by one;
Prophet of Good-Luck mystery
By sign of four which few may see;
Emblem of comfort in the speech
Which poor men's babies early reach;
Sweet by the roadsides, sweet by rills,
Sweet in the meadows, sweet on hills,
Sweet in its every living breath,
Sweetest, perhaps, at last, in death!
Oh! who knows what the Clover thinks!
No one! unless the Bobolinks!

— Saxe Holm.

HELPS TO STUDY

Word Study.

in'ti mate — a close acquaintance.

lees — what is left in the bottom of a cask.

peer — one of the same rank.

rill — a very small brook.

Notes and Questions. — Why is the clover called "intimate friend of Bobolinks"? In what way is it a "Keeper of Inn for traveling bees"? What service do the Humming Birds perform? What is meant by the "sign of four"? Where does the clover grow? Why is it "sweetest in death"?

Not to myself alone,
  The little opening flower transported cries,
Not to myself alone I bud and bloom;
With fragrant breath the breezes I perfume,
  And gladden all things with my rainbow dyes.
And bee comes sipping, every eventide,
  His dainty fill;
The butterfly within my cup doth hide
  From threatening ill.

— ANONYMOUS.

TO A BUTTERFLY

I've watched you now a full half hour,
Self-poised upon that yellow flower;
And, little butterfly, indeed
I know not if you sleep or feed.
How motionless! — not frozen seas
More motionless! and then
What joy awaits you, when the breeze
Hath found you out among the trees,
And calls you forth again!

This plot of orchard ground is ours;
My trees they are, my sister's flowers;
Here rest your wings when they are weary;
Here lodge as in a sanctuary!
Come often to us, fear no wrong;
Sit near us, on the bough!
We'll talk of sunshine and of song;
And summer days when we were young;
Sweet childish days, that were as long
As twenty days are now.

— William Wordsworth.

HELPS TO STUDY

Word Study.

poised — balanced or suspended.

plot — a small extent of ground.

lodge — to abide, to stay.

sanc′tu a ry — a place of refuge and protection.

Notes and Questions. — Does the butterfly sleep or feed when he remains so long in one position? When does the butterfly seem happy? What invitation did the poet give the butterfly? What does he say about the length of a day when he was a child? What do you know of the life history of a butterfly?

For biography see p. 228, Book Four.

The garden glows,
  And 'gainst its walls the city's heart still beats;
And out from it each summer wind that blows
  Carries some sweetness to the tired streets.

— Margaret Deland, "Old Garden."

INSECTS

I

How Insects Live and Grow

We have had a number of lessons about the larger animals. Now we come to consider some of the small creatures of the animal kingdom — the insects. Had you ever thought of an insect as being an animal? Insects are just as really animals as are the horse, the cow, and the hog. Some of them are so small that we cannot see them without a microscope, but they are animals.

Nearly all insects in the last or full-grown stage have wings. Some of them have one pair of wings, while some have a coarse outer pair, and a thinner pair underneath these coarser ones. Most insects also have legs, though there are a few that do not. The usual number of legs is six. Some people call spiders and mites insects, but they do not belong to this class of creatures at all. They have eight legs and no wings.

The bodies of all insects are divided into three principal parts, the head, the thorax, and the abdomen.

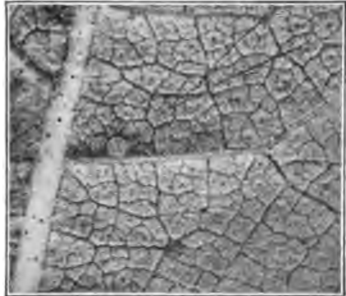
The head contains the eyes and the feelers. The eye of an insect is not one large single eye like our own, but is a group of many small eyes, being what we call a "compound eye." In this respect it is not unlike a blackberry or a dewberry. I am sure that you have noticed these berries, and have observed that what appears to be one large berry is really but a core, or central part, having attached to it a large number of

very small berries. This is exactly the structure of the eye of the insect.

The feelers are little hair-like sense organs. They take the place of our organs of touch and smell.

The thorax or chest is the central part of the body and bears the wings and the legs. The remainder of the body is called the abdomen.

The growth of most insects is from within, the skeleton or hard shell-like part of the body being on the outside, and surrounding and inclosing the soft, flesh-like part. As the insect grows from one stage to another, the inner part of the body enlarges, expands, and bursts off the hard outside layer. This process of growth is continued until the insect is full grown.



EGG STAGE, COTTON CATERPILLAR

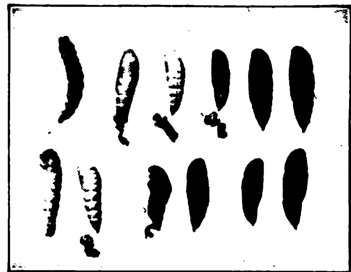
Many varieties of insects called "bugs" and "grasshoppers" have the same shape or form when they are young as they have when they are full grown, except that they lack wings, but as they grow to maturity, they develop their wings gradually. After the wings are fully developed insects never grow more or change their form.

Most kinds of insects pass through at least four important stages or periods of life. The first is the egg stage. When the egg hatches, the little animal comes out in the larva stage. He grows very rapidly during this period, which, for this reason, is called the growing stage.

Different kinds of larvæ are known as caterpillars, grubs, maggots, etc. The next stage or period of life which he passes into is spoken of as the pupa stage. This stage, during which the insect undergoes the most remarkable and last change of his changeful life, is spoken of as the "transformation stage." When it is about to come on, a caterpillar ceases to feed, hunts a protected spot somewhere, and slightly shrinks or shrivels, — but does not die. In a short time — it may be a few days — he sheds his larva skin and becomes a full-grown beautiful butterfly. What a glorious transformation for a lowly, stupid little worm!

LARVÆ, COTTON CATERPILLAR

It is quite interesting to observe how the various insects feed. Those of one class have mouths and bite. They feed on grasses, weeds, and other plants, biting off parts of the leaves or plants, just as large animals do.



PUPÆ, COTTON CATERPILLAR

Another class of insects eat quite differently, taking in their food by sucking it. These usually have a rather sharp-pointed bill which they push into the inner part of

the plant or flower, and through it suck the sap from the inside of the plant.

It is very important for the farmer to know how the different insects feed, in order that he may use the proper method of getting rid of them when they injure his crops. When they belong to the biting class he should use some poison such as Paris green or arsenate of lead. Either of these poisons can be applied to the leaves of the plant; and when the insect bites the plant, he will, of course, get some of the poison and die. On the other hand, if the pest is a sucking insect, it will be useless to apply poisons, for his bill will be inside the plant and he will get none of the poison. In fighting this class the farmer should apply some caustic substance, like lime-sulphur, that will attack the body of the insect and kill him.

A great many people have the idea that all insects are injurious or harmful to mankind, but this is by no means the case. We have insect friends and insect enemies, just as we have friends and enemies in the germ or bacterial kingdom.

ADULT COTTON CATERPILLAR

Among insects friendly and beneficial to mankind are bumblebees, which work hard for us in carrying pollen from flower to flower in fields of cotton, clover, and other crops. Likewise may be mentioned the honey bees, which are our friends in two respects: they carry pollen like the bumblebees, to fertilize flowers, and they also

COTTON LEAVES EATEN OFF BY COTTON CATERPILLAR

make honey. Then, I am sure that every boy and girl has caught a lady beetle and sung the familiar old couplet:

"Lady bug, lady bug, fly away home,
Your house is on fire and your children will burn!"

This rhyme is about another of our insect friends — one which does us a great service by eating plant lice.

Some of the injurious insects are the cotton caterpillar, the boll weevil, the corn weevil, the San José scale, the codling moth, which causes worms in apples, the peach borer, which works ruin to our peach trees, the house fly, and some kinds of mosquitoes.

I am sure that every boy and girl who reads this lesson will be interested in the wonderful changes that take place in the life history of insects. They should get the eggs of some of these insects, place them in a warm place and

watch them hatch, and then note all of the changes that take place until the insects become fully grown.

Another study in which I feel sure you would be greatly interested would be to determine, by careful examination, which ones live by biting their food, and which ones by sucking their food. Look very carefully at such things as these as you go about in the fields, among plants and insects.

II

Honey Bees

One of the joys of my early youth was visiting the home of my grandfather, who lived in one of those quiet little valleys in northern Alabama.

Grandfather was one of the pioneers of Alabama, and being of the best type of pioneer, he brought his civilization with him. Everything that made life pleasant to him back in the "Old North State" he transplanted to the new soil to which he came.

When he came to Alabama from the state of North Carolina, he brought with him, among many other things, some honey bees. He was remarkably successful with these bees in the new country to which he had come, for here they had plenty of wild flowers, as well as clover and other cultivated crops. I suppose I remember these bees more vividly than anything else about that farm, for I have private reasons of my own for not forgetting them. I am not saying what those reasons are, but the next time I try to rob anything it won't be a honey bee!

A SWARM OF BEES

Anyhow, I remember those bees very well. I can almost see the large number of bee-gums sitting under the shade of the trees on the hillside near the home; and I can taste again, with little stretch of imagination, the delicious honey in the comb that my Aunt Kate used to give me out of the big smokehouse where it was stored.

I suppose it was the taste of Aunt Kate's honey that first interested me in the gingery little rascals that made it, but anyhow, I soon began to inquire about the bees themselves, and their work. I must have made pretty much of a nuisance of myself, for I remember dogging grandfather's footsteps until he told me all about the bees. However, I am not sorry that I made him teach me, for what I learned has been of great service to me.

There may be found three kinds of bees in each colony or hive — the queen, the drones or male bees, and the working bees. It is the business of the queen to lay all the eggs for the future bees of every kind in the colony. She does no other work, and her comfort is looked after by the working bees. They are very careful to feed her and to take good care of her, because the development and growth and life of the colony depend entirely upon her. The queen gives her entire time to laying eggs in the little cells made by the working bees.

When the working bees wish to produce a new queen, they first make a cell a little larger than the average one and hanging downward. When the egg is deposited in this cell, they take especially good care of it and, after it is hatched, feed it on a specially fine food called "royal jelly." An egg laid by the queen will ordinarily produce a worker, but may be made to develop a queen bee, if the working bees so desire. The drone bees are rather large, lazy, clumsy fellows and, after a time, they are run out of the gum by the working bees, and destroyed.

There are great numbers of working bees — usually from twenty to thirty thousand — to be found in each colony. The working bees do all of the work. They visit the flowers and sip the nectar, bring it to the hive where they deposit it in the little cells, and fan it with their tiny wings until the water is driven out of it, and it ripens into honey. The working bees work so hard that their life is usually very short. But a large number of young bees is raised each year, so that the life of the colony, or hive, goes on from year to year unless it is damaged or destroyed in some way.

My childish interest in my grandfather's bees and what he taught me about them has been of great benefit to me since I have become a man and have a farm of my own. I now sell a great deal of honey and make money by it, and it takes very little of my time and attention to look after my bees.

It seems to me that every farmer should have a few hives. By giving the bees the very little attention that they require, he would be able to have fresh honey for his own table, and also have honey to sell.

Considering the amount of time and attention required by it, very few departments of farm work are more profitable than bee culture.

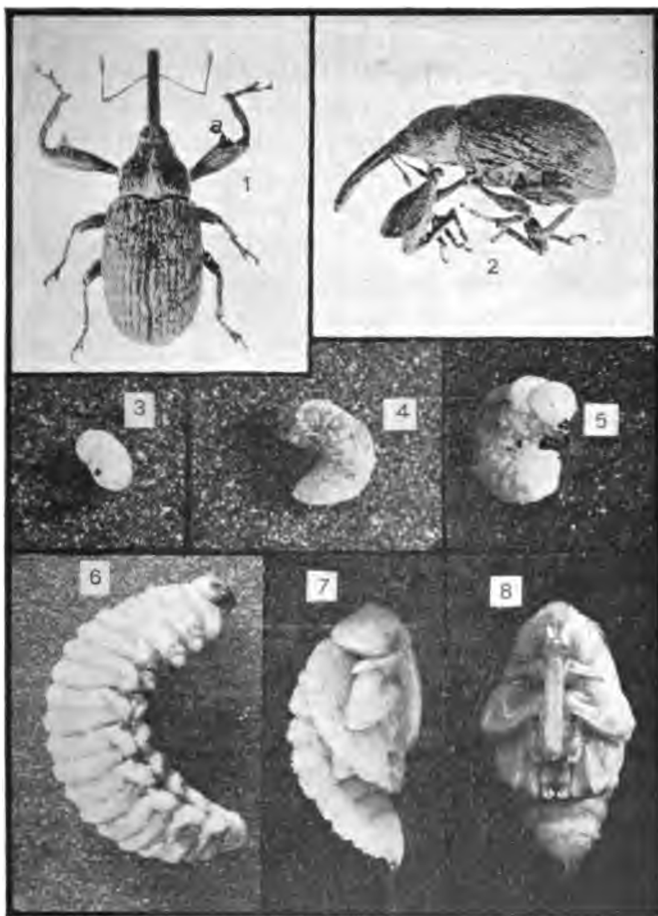
III

The Cotton Boll Weevil

Of all the injurious insects with which the Southern cotton farmer has had to deal, the beetle known as the Mexican cotton boll weevil has proved the most destructive and the most difficult to control.

This cotton pest has been known to exist in Mexico for a number of years, but it did not invade the United States until about 1892. Since that time, however, it has spread extensively in the cotton area of the South. The boll weevil feeds only upon cotton. It is estimated that the annual damage done by it to the cotton crop of the South is more than twenty-five million dollars.

The weevil lives over the winter in the adult or grown-up stage and comes out in the spring or early summer when cotton begins to fruit, and lays its eggs in the



THE BOLL WEEVIL AND ITS STAGES

1. An adult boll weevil, viewed from above; *a* two teeth on fore femur; 2, adult weevil, side view; 3, egg of weevil; 4, grub about two days old; 5, grub at entrance to second stage after shedding first skin, about three days old; 6, grub fully grown, about ten days from egg; 7, transformation or pupal stage, side view, snout, legs and wings forming; 8, pupal stage, front view of fig. 7. 1, 2, 6, 7, and 8 enlarged about ten diameters, 3, 4, and 5 enlarged about twenty diameters.

squares or the young bolls. A deep hole is eaten by the insect into the young square or boll, and the egg is placed in this. The hole is then sealed up by the weevil to protect the egg. Often one female weevil will lay from one to two hundred eggs.

The small larva that is hatched from the egg is spoken of as a grub. This name is applied to the larvæ of all beetles. As the grub grows, he eats the food surrounding him. Of course, the young cotton square or boll is injured, and very frequently dies and falls to the ground. It takes about ten days for the grub to get fully grown and to pass into the pupa stage. This pupa stage lasts about three days and then the fully formed insect cuts a hole in the wall of the cotton square or boll large enough for his body, and emerges a full-grown cotton boll weevil.

The adult or grown weevil is reddish brown or gray in color, and is about one-fifth of an inch in length, exclusive of his snout, which is just half as long as the body. He is shaped somewhat like a young corn weevil but is considerably larger. The adult weevil may live for a number of months. You can see from this story that the insect develops very rapidly from the egg to the grown weevil. It is possible to have as many as five generations in one season.

The boll weevil may spread in a number of ways. Carrying cotton seed from an area where the boll weevil is, to a part of the country where there are no weevils, may cause the spread of the pest. In the fall months when the cotton season is nearly over, weevils frequently rise and fly long distances seeking new fields. The boll weevil advances at the rate of about fifty miles each

year, and ultimately, the pests will spread over the entire cotton belt of the South.

The cotton boll weevil passes the winter sheltered in the hulls of old cotton bolls where the stalks are left standing, or under piles of old cotton stalks and other trash about the fields, under the bark of trees, and in other protected places.

The fact that the egg is deposited *inside* of the cotton square or the boll, and develops there makes it impossible to poison the young weevil. The remedies suggested by the Department of Agriculture and the Colleges of Agriculture are, to plant cotton early, using early or rapid fruiting varieties, preparing the land well, cultivating and fertilizing so as to hasten fruiting, and especially to destroy the green cotton stalks as early as possible in the fall, to cut off the only source of food they have. It is also suggested that if the farmers would pay a little less attention to cotton planting and a little more to raising live stock, and also hay, grains, and other crops on which the weevil cannot subsist, the boll weevil would be in a measure checked. Another very effective remedy is to go over the cotton fields when the old weevils first come out in the spring, gather up all of the weevils, together with the punctured bolls, and destroy them.

HELPS TO STUDY

Word Study.

tho′rax — the chest.

ab do′men — that part of the body that contains the digestive organs.

ma tu′ri ty — full growth.

lar′va — the first shape or stage of an insect.
pu′pa — the second stage in the growth of an insect.
San José (San Ho za′).
viv′id ly — brightly, clearly.
sub sist′ — to live, to be supported.

Notes and Questions. — What can you say of the eye of an insect? Describe the growth of an insect. What is the first step of growth? Describe the larva state. Describe the pupa stage. Describe the way insects feed. How can insects be destroyed?

What is the duty of the queen bee? How many bees are found in each colony? What is the duty of the working bees? What three kinds of bees are in every colony? How is the new queen produced? Is there any good reason why bees should not be kept on every Southern farm?

What damage is done by the boll weevil? Describe the way the boll weevil does damage to the cotton boll. Describe the weevil. What methods may be used to destroy the boll weevil? Describe the life history of the boll weevil. What effect has the coming of the boll weevil had on the character of our agriculture?

The poetry of earth is never dead:
When all the birds are faint with the hot sun,
And hide in cooling trees, a voice will run
From hedge to hedge about the new-mown mead:
That is the grasshopper's — he takes the lead
In summer luxury — he has never done
With his delights, for when tired out with fun,
He rests at ease beneath some pleasant weed.

— John Keats.

A GREAT MAN AND A GREAT WORK

This story is about a great farmer, a man who devoted his life to teaching men how to live.

It is about a man who believed that scientific methods are just as necessary in farming as they are in the construction of steel bridges or the running of locomotives. It is about a man who believed and proved that if a man will but make a faithful study of the science of farming, he can make the very desert blossom as the rose. It is about a man who believed and demonstrated that even adverse conditions of nature may be conquered by the man who will put his head as well as his hand to the task. Dr. Seaman Asahel Knapp was one of the first men of this country to appreciate the splendid possibilities of agriculture, and it is largely due to him that we are at last coming to know that farming is one of the highest callings to which a man can devote himself. Through Dr. Knapp and men like him we are at last coming to know that it takes brains as well as brawn to run a farm, and that when brains as well as brawn are devoted to the work, success is sure. Through men like him we are coming to realize the joy, the freedom, the self-development, and the independence of this most honorable of callings.

It is pleasant to think of Dr. Knapp as a great American. To the North, his birthplace, he owed his rearing and his education, and it was here that his work as teacher began. In the West he spent many years of his

DR. KNAPP

manhood in developing and teaching the great science of agriculture. And the last twenty-five years of his life were spent in studying and demonstrating the magnificent agricultural resources of the South.

His biographer tells us that Dr. Knapp was born in a small New York town in 1833, and received his education, and afterwards taught for a while, in that state. In 1866 he moved to the West and settled on a farm in Iowa. Here he began the raising of general crops, together with live stock, principally Berkshire hogs and Shorthorn cattle. He soon became a power in his neighborhood, his county, and his state, for he made a sincere study of all that he attempted, and was always ready to give his neighbors the benefit of what he had learned.

Dr. Knapp published, at Cedar Rapids, an influential farm journal known as "The Western Stock Journal and Farmer." Through the medium of this paper, and in other ways, he pointed out to farmers the importance of producing more and better stock, and the necessity of getting away from the one crop idea. About this time he became acquainted with James Wilson — afterwards Secretary of Agriculture — who was then also engaged in farming, and this was the beginning of an association which has resulted in untold good to the vast farming interests of the South. It was during the period from 1870 to 1880 that Iowa was changed from a grain-producing state to a stock-raising and dairying state. Mr. Wilson, Dr. Knapp, and some other public-spirited men of that state devoted their personal time and attention to helping the farmers in this change. Dr. Knapp went

to work to help the farmers to improve their stock in a practical way. In this work he went to them personally and organized means of assisting them. In later years he said in public addresses that this was the period during which the value of demonstration work for farmers first impressed itself upon him.

In 1886, Dr. Knapp went to Lake Charles, La., to accept a position with a large corporation then engaged in the agricultural development of the southwestern part of Louisiana. This whole region was at that time one vast cattle range, and very few crops were grown. Dr. Knapp saw and appreciated the possibilities of the country, and began in an energetic way to call the attention of the western people to that region. In this work he was very successful, thousands of families moving down from the states of Iowa, Illinois, and Indiana, and taking up farms. This resulted in the development of prosperous communities. It was while engaged in this work that Dr. Knapp first did demonstration work, by producing on farms in that section standard crops, in order to prove to the settlers that the land would grow the crops as he had claimed.

Dr. Knapp made a feature of rice growing, extending his work in this field into Texas and other adjacent states. He was engaged in work of this character for nearly twelve years, in the meantime doing much to advance general agriculture by assisting at farmers' institutes, writing agricultural articles, and organizing societies and associations, all with the object of advancing the interests of the farmer.

The rapid development of the rice industry in southern

Louisiana and Texas brought about the need for improved varieties of the grain. With a view to helping the rice farmers, Dr. Knapp was authorized, in 1898, by Secretary Wilson, to visit Japan, China, and the Philippine Islands, in the capacity of an agricultural explorer, for the purpose of securing all available information regarding rice varieties, rice milling, and rice production. The result of this work was the introduction into the South of Japanese rice and of a number of improvements in growing the crop which have since greatly enlarged the industry. After his return from the Orient, much attention was given to developing the rice industry, organizing the rice farmers, and building mills — a work which has resulted in greatly increasing the wealth of the region.

Dr. Knapp was for a number of years president of the Rice Growers' Association of America. In 1901, Secretary Wilson again sent him to the Orient for the Department of Agriculture, and in 1902 he was sent to Porto Rico to make a special report with regard to the agricultural resources of that island.

In all of his earlier work in the South, Dr. Knapp recognized the great importance of crop diversification, and about 1902 his ideas in this direction began to take definite form. In conjunction with the Chief of the Bureau of Plant Industry, he made frequent trips through the Gulf States with a view to starting a line of work looking toward the encouragement of diversification. As a result of this effort a number of "demonstration farms" were established for the purpose of showing what could be done in growing crops other than cotton.

In 1903, the Mexican cotton boll weevil began to arouse widespread apprehension in the South. Despite all that could be done, it was soon seen that heroic efforts would be necessary to allay the fears of the farmers, especially those in Texas, whose crops had for one or two years been practically destroyed by the pest. In the fall of 1903, a thorough inspection of the region infested by the weevil was made with Dr. Knapp by the Secretary of Agriculture and the Chief of the Bureau of Plant Industry. That winter Congress made an appropriation for the study of the weevil problem.

A small portion of that appropriation was set aside for some special work outlined by Dr. Knapp, and designed by him. His plan was to go personally to the farmer and demonstrate the raising of cotton under boll weevil conditions, and the production of crops to furnish the family with food and the stock upon the farm with necessary feed. In the light of the former achievements of Dr. Knapp in the South, and Secretary Wilson's long acquaintance with him, the plan was approved and he was authorized to proceed with his work. Thus was inaugurated the Farmers' Coöperative Demonstration Work, with Dr. Knapp in charge. It was announced at the time that the object and scope of the work would be to show by actual demonstrations on the farmer's own farm the value of better cultural methods, the value of good seed, and the value of practicing a few simple principles in growing a crop of cotton, despite the weevil. It was further pointed out that to carry on this demonstration work thoroughly and effectively, would require a corps of men who were familiar with agricultural con-

ditions in the South and who would have the knowledge and ability so to direct it that the farmer would learn how to help himself.

At the inception of the work, Dr. Knapp had few assistants, but under his able management, additional funds were secured, and at the time of his death, in April, 1911, hundreds of experienced agents were employed, scattered throughout the South, from Virginia to Texas. So great has been the recognized benefit of this work that funds from many other sources than that of the government have been contributed. From the beginning of the work until the day of his death, Dr. Knapp kept in close touch with every phase of it, and his was its leading spirit and inspiration.

Dr. Knapp began his great work at an age when most men are thinking of retiring from active business, and he did so, not because of any personal advantage which might accrue, but solely from a desire to see Southern agriculture occupy the position to which it is justly entitled. In his death the South has lost one of its most useful and sincere friends, — a friend who sacrificed ease and comfort in order that he might help to work out the serious problems confronting the farmers of this region.

HELPS TO STUDY

Word Study.

ad verse′ — unfavorable.

brawn — muscular strength.

cor po ra′tion — an institution or group of people, having a common seal, and legally authorized to act as one person.

ca pac′i ty — profession, position.

di ver si fi ca′tion — act of varying.

in con junc′tion with — together with.

ap pre hen′sion — alarm.

he ro′ic — drastic, acting violently and rapidly.

ap pro pri a′tion — money set apart for a special use.

al lay′ — check, quiet.

corps — a body of persons associated in a common work.

in cep′tion — beginning.

ac crue′ — to be added as increase.

Notes and Questions. — What are the requirements for making a successful farmer? How did Dr. Knapp prove this? Give a short sketch of Dr. Knapp's life. What did he say about the one crop idea? What did he do to help the farmer improve his stock? How did he assist in the development of the southwestern part of Louisiana? Where was he sent as an agricultural explorer? What was the result of this work? What was the purpose of his demonstration farms? What was the object of the Farmers' Coöperative Demonstration Work? What part did Dr. Knapp take in the work? In what ways did he show himself a friend to the farmers of the South?

The Seaman A. Knapp School of Country Life, one of the divisions of George Peabody College for Teachers at Nashville, Tennessee, has been established as a memorial to Dr. Knapp.

THE GRASSHOPPER

He jumps so high in sun and shade,
  I stop to see him pass, —
A gymnast of the glen and glade,
  Whose circus is the grass!
The sand is 'round him like a ring, —
  He has no wish to halt, —
I see the supple fellow spring
  To make a somersault!

Though he is volatile and fast,
  His feet are slim as pegs;
How can his reckless motions last
  Upon such slender legs?
Below him lazy beetles creep;
  He gyrates 'round and 'round, —
One moment vaulting in a leap,
  The next upon the ground!

He hops amid the fallen twigs
So agile in his glee,
I'm sure he's danced a hundred jigs
With no one near to see!
He tumbles up, he tumbles down!
And, from his motley hue,
'Tis clear he is an insect clown
Beneath a tent of blue!

— WILLIAM HAMILTON HAYNE.

HELPS TO STUDY

Word Study.

gym′nast — an acrobat.
glen and glade — shady hollow places.
sup′ple — active, easily bending.
vol′a tile — changeable.
gy′rates — turns, revolves.
ag′ile — nimble.
mot′ley hue — many colors.

Notes and Questions. — How does a grasshopper jump, and how far can he jump? Why is he compared to a gymnast? Of what colors are grasshoppers? Why is he called an insect clown? Point out all the expressions in this poem by which the poet likens the grasshopper to the circus gymnast.

FLIES AND MOSQUITOES

I

The Fly

One of the things that are coming to be the tests of our progressiveness, our wholesomeness, our ideas of cleanliness and decency, is the way we regard the fly.

When we see a man who screens his house, even if he must do it with common netting, who takes care to have every possible fly-breeding place on his premises clean, who untiringly fights with traps and poisons the flies that come to him through the carelessness of his neighbors — we know that that man has learned one of the greatest dangers that can threaten him, and that he is on guard against it.

HOUSE FLY

When we see a man let flies breed by millions about his unclean premises and then swarm over his kitchen, over his dinner table, over his drinking vessels, over his sleeping children, over everything, the most sensible conclusion that we can come to is that he simply does not know the dangers from disease and death that hover about him.

HOUSE FLY, MALE AND FEMALE

Flies spread typhoid fever, tuberculosis, infantile paralysis, and many other common diseases of children. Every year, about fifty thousand children under two years of age die of intestinal infection, most of which can be traced directly to flies. Among older people there are fifty thousand deaths annually from typhoid fever, and this disease is so commonly spread by the house fly that this pest has come to be called the "typhoid fly."

Careful examinations have shown that each fly, on the average, carries about one million five hundred thousand germs of various kinds on its body.

All flies breed in filth, either decaying animal or vegetable matter. The larva of a fly is called a maggot. It requires at least twelve days for development from egg to adult. If places where refuse is placed are cleaned frequently, there will be no chance for the breeding of flies.

Horse stables and pig pens are responsible for the breeding of most of the flies found in any neighborhood, but there are many other places in which the disease-bearing

STAGES OF HOUSE FLY

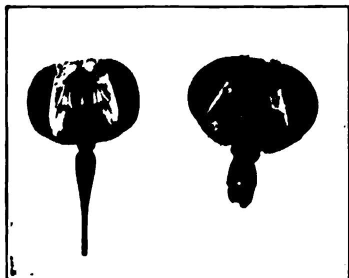
pests are hatched, as you may easily learn by touring the premises of any careless person.

Measures for the control of this terrible evil should be adopted by every household. Undoubtedly the most important of these measures are those which remove entirely or reduce or safeguard the breeding places of flies. In connection with horse stables, the present plan is to provide, for all refuse, a bin which is carefully screened and fitted with fly traps. Another plan is to treat the refuse in such a bin with either chloride of lime or pyroligneous acid in such quantities as to prevent the breeding of flies therein. The stable yard, if small, should be well drained and kept closely scraped, the refuse being deposited in the bin, which should be emptied weekly, if possible.

In spite of all that can be done, some flies will remain, and to guard against their entrance to houses, the windows

and doors should be screened, especially in the kitchen and dining room.

Keep all table refuse in a garbage can or pail, provided with a cover having an opening about three inches in diameter, above which a good fly trap can be conveniently and securely fastened. Kill the flies caught in the traps by plunging them into hot water. A few traps properly distributed and arranged to guard the places where flies breed and feed will go far toward controlling them.



HEADS OF STABLE FLY AND HOUSE FLY

Insist that meats, fish, green groceries, and bakers' goods that you buy shall have been protected from flies. This should be done everywhere.

Among other methods for fly destruction is the use of sticky fly papers and fly poisons. One of the best poisons consists of a tablespoonful of formalin in a teacupful of one half milk and one half water. Expose this in saucers where flies occur.

II

The Mosquito

Mosquitoes which may be the bearers of malaria or of yellow fever breed only in still water. Without such water there can be none of these pests. All mosquitoes may be a source of annoyance, but some kinds are very dangerous because they transmit diseases. This is,

in fact, the only way in which malaria and yellow fever are known to be transmitted.

There are about two million persons in the South to-day who are suffering more or less from malaria — a disease from which they could have protected themselves. Malaria is a preventable disease, and is being very successfully controlled even in the Panama Canal Zone, which was formerly considered to be one of the worst malarial regions in the world.

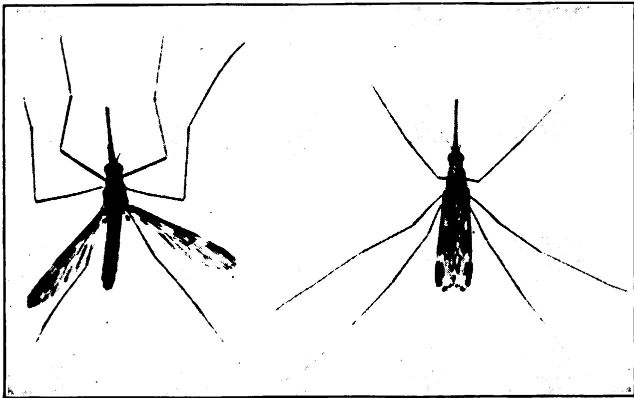
YELLOW FEVER MOSQUITO

The "yellow fever mosquito" — only one species known — is the common black and white "day mosquito" of the South. It is a domestic species, breeding in rainwater receptacles around houses. It bites during daylight, especially in the early forenoon and late afternoon. The wings of this species, as well as those of the common mosquitoes, are not noticeably spotted.

The malarial mosquitoes — two species occur in the South — hide during the bright light, and become active only after sunset, biting especially during twilight at night and morning. Their legs are long and noticeably slender, while their wings are conspicuously spotted, having many more scales on them than have the wings of other mosquitoes.

Mosquito eggs are laid only upon still water or where water will cover them after rains. During the first ten days of the young mosquito's life, it is known commonly

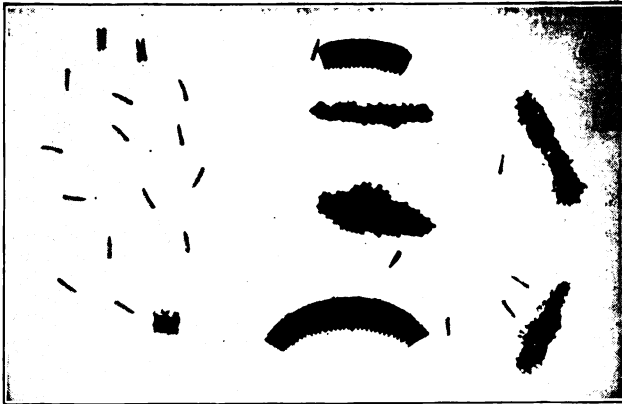
as a "wiggletail" or "wiggler." It requires from ten to twenty days from the time the eggs are deposited before the adult mosquito will have developed and left the water. Water standing for more than ten days in ditches, gutters, ponds, old tin cans, barrels, cisterns, or any similar receptacle, even including hollows in trees, may breed mosquitoes. Look out particularly for water dripping



MALARIA MOSQUITOES

from hydrants in the yard or standing around sink drains and in stable yards. Foul water may breed more mosquitoes than pure water. Unused wells, bathroom tanks, sink traps, etc., are often infested.

To prevent the breeding of mosquitoes, drain standing water, if possible, and fill in the hollows where pools may form after rain. Keep empty tin cans, bottles, and broken crockery carefully placed, bottom upward, in a box or barrel so that they will not hold water. Such things should not be dumped nearer than a quarter of a mile



EGGS OF COMMON HOUSE MOSQUITO

from any dwelling. Keep hydrants tight so that constant dripping of water will not occur. Mosquitoes do not breed in swiftly running or rough water.

To destroy wiggletails and prevent mosquitoes where standing water cannot be drained apply kerosene or coal oil; one quart of kerosene should be sufficient for about five hundred square feet of water surface. The kerosene should be renewed about every third week.

Watering troughs should be emptied at least once a week. Wells, rainwater storage barrels, and cisterns should be kept closely screened. Cheesecloth is cheaper than wire and is efficient as long as it is whole.

To guard against mosquitoes, especially against malarial mosquitoes, sleeping rooms, at least, should be screened, or mosquito bars should be used. Care should be taken to avoid being bitten by mosquitoes between sunset and sunrise, as malarial mosquitoes rarely bite during bright

daylight. A good repellent for all kinds of mosquitoes may be made as follows: Oil of citronella, one ounce; spirits of camphor, one ounce; oil of cedar, one-half ounce. This may be rubbed lightly on the hands and face. A few drops on a towel hung near the head will keep mosquitoes away for hours. Burning a little fresh, dry pyrethrum powder in a closed room will drive flies and mosquitoes to the windows and stupefy them so that they will fall and then may be easily killed.

HELPS TO STUDY

Word Study.

in′fan tile pa ral′y sis — an acute disease confined largely to children.

in fec′tion — that which causes or communicates a disease.

py ro lig′ne ous acid — an acid produced by distilling wood.

trans mit′ted — carried from one to another.

a dult′ — grown.

re cep′ta cle — vessel for holding substances.

re pel′lent — that which drives away.

pyrethrum — (pir′eth rum).

Notes and Questions. — What are the diseases that flies spread? How many children and young people die every year from diseases carried by flies? In what kind of places do flies breed? How can the fly pest be prevented? How should we protect our houses? What two diseases are caused by mosquitoes? Describe the yellow fever mosquito. Describe the malarial fever mosquito. How can we prevent the breeding of mosquitoes? How can we protect ourselves from mosquitoes?

TO A WATERFOWL

Whither, midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
Thy solitary way?

Vainly the fowler's eye
Might mark thy distant flight to do thee wrong,
As, darkly painted on the crimson sky,
Thy figure floats along.

Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean side?

There is a Power whose care
Teaches thy way along that pathless coast, —
The desert and illimitable air, —
Lone wandering, but not lost.

All day thy wings have fanned,
At that far height, the cold, thin atmosphere;
Yet stoop not, weary, to the welcome land,
Though the dark night is near.

And soon that toil shall end;
Soon shalt thou find a summer home, and rest,
And scream among thy fellows; reeds shall bend,
Soon, o'er thy sheltered nest.

Thou'rt gone, the abyss of heaven
Hath swallowed up thy form; yet, on my heart
Deeply has sunk the lesson thou hast given,
And shall not soon depart.

He who, from zone to zone,
Guides through the boundless sky thy certain flight,
In the long way that I must tread alone,
Will lead my steps aright.

— WILLIAM CULLEN BRYANT.

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HELPS TO STUDY

Word Study.

sol'i ta ry — lonely.
fowl'er — one who kills wild birds for sport or food.
mark — observe, notice.
plash'y — splashy.
brink — edge, margin.
marge — margin.
chafed — rubbed so as to wear away.
il lim'it a ble — boundless.
a byss' — any deep, immeasurable space.
zone to zone — from the cold to the warm region.

Notes and Questions. — What incident probably suggested this poem to Bryant? What words in the poem would you not find in prose? What words in the poem suggest loneliness? If you were an artist and were making an illustrated edition of this poem, what picture would you paint for each stanza? How does the waterfowl strengthen the faith of the poet? Why does the poet select the evening sky as the setting for his bird of passage?

THE ECONOMIC VALUE OF BIRDS

As a result of scientific research, it is learned that many of our common maladies, no less than the growing burden of weed control, are traceable to our former wholesale slaughter of insectivorous birds. Most insects are at war with man and man's interests. Birds annually destroy thousands of tons of noxious weed seeds and billions of harmful insects; they seem, indeed, designed to hold in check certain forces antagonistic to both the animal and the vegetable kingdoms. The Mexican boll weevil, for instance, which has worked such fearful havoc in the cotton fields of Texas, and which is steadily marching eastward, finds its deadliest enemy in the bird.

A noted French scientist asserts that without birds to check the ravages of insects, human life would vanish from this planet in the short space of nine years. He holds that insects would first destroy the growing cereals, and would next fall upon the grass and foliage, leaving

nothing upon which cattle and other stock could subsist. Agriculture and general plant life having thus been destroyed, domestic animals would perish for lack of food, and man, in his extremity, in a barren and desolate land, would be driven to subsist on fish, later to devour his fellows, and finally to share in the general extinction.

Granting that only a portion of what this eminent Frenchman asserts is true, it is easy to glean from his theory that birds are man's best allies, and that they should be protected, not only on account of their great usefulness, but because their bright plumage and their sweet singing inspire us to a love of the pure and the beautiful.

The wholesale slaughter of our song and insectivorous birds so persistently waged in the past has been practically stopped. Even in cities, where birds lately were but curiosities, they are now seen in large numbers, to the delight of all who love Nature in her visible forms.

Those of us who love our great country, who glory in her splendid history, who delight in her imperishable traditions, who take pride in her boundless natural resources, are eager to preserve and protect all things that combine to make her great.

The principal vocation of our brave and patriotic people is agriculture — one of the most ancient and honorable arts known to man. Upon the yield of our fields depend the happiness and prosperity of our citizens. When there are abundant crops of fleecy cotton and our garners are full of golden grain, anthems of contentment resound throughout our loved Southland and Peace waits upon Plenty.

We are assisted in making good crops by an army of feathered friends that serve without pay. The part that birds take in protecting farmers from the ravages of insects that prey upon crops and orchards, would be all too keenly realized if all the bright-colored, harmless songsters of the trees were suddenly exterminated. Without birds our fair country would soon become not only non-productive, but absolutely uninhabitable.

Cruel men and wanton boys sometimes shoot for sport man's feathered allies. It would be cheaper if the rifle that discharged each wanton shot were loaded with a golden bullet and fired into the sea. Boys were once permitted to catch and sell young mocking birds and red-birds for fifty cents each. The state was made at least one hundred dollars poorer by every such act. Each meadow lark, each individual quail, in a ten-acre wheat, corn, or cotton field, earns five dollars, in a single season as an insect destroyer.

Every precaution is taken by us to prevent thieves from stealing even the most trifling of our possessions, but many of us take no part in efforts to dissuade the gunner from shooting birds upon whose existence depends our very livelihood.

Let us unite our energies in the movement to save our friends, the birds, from destruction. If we will but do this, not only will the farmer's best help be saved to him, but soon every bush will harbor a songster, and every tree a choir.

—John H. Wallace, Jr.

HELPS TO STUDY

Word Study.

mal′a dies — diseases.
in sec tiv′o rous — feeding on insects.
nox′ious — hurtful, harmful.
de signed′ — intended, planned.
an tag o nis′tic — opposing.
hav′oc — destruction.
as sert′ — declare.
ce′re als — grains.
ex trem′i ty — necessity.
ex tinc′tion — complete destruction, wiping out.
em′i nent — celebrated.
vo ca′tion — occupation.
an′them — a song of praise.
ex ter′mi nat ed — utterly destroyed.
al lies′ — helpers.

Notes and Questions. — To what are many of our common maladies said to be traceable? What do birds annually destroy? What does a noted French scientist say would happen if birds did not check the ravages of insects? State two reasons why birds should be protected. What does the author say a mocking bird or redbird is worth to the state? What does he say each meadow lark and quail on a ten-acre farm earns in a single season? What should we do to protect the birds? Find out if your state has any game laws, and what is the substance of them.

THE FLICKER

Oh the flicker! he is here —
April's hardy pioneer!
Soul of young hilarity
He's the bird, the bird for me!
With his lisping infantile;
Many a quirk and roguish wile;
Whims of wooing in his pate,
Toying, coying with his mate;
And his chucklings loud and long,
Richer than the richest song.

Through the sober trees he flies,
Proper birds to scandalize,
See him in his shambling flight
On the serious oak to light;
Pass the laugh and pass the jest:
Let's be jolly, laughter's cheap,
Oh, the joke's too good to keep!
Tell it, tell it to the rest!

Careless conqueror of care!
Nature's motley he doth wear,
When I hear his hearty call
To the feast she spreads for all,
To her revel jovial,
Forth I hie with right good will,
To sup with her and sup my fill,
Join the merry rollicking
And celebrate the feast of spring.
Oh the flicker, he is here,
Drunk with new wine of the year.

— DANSKE DANDRIDGE.

HELPS TO STUDY

Word Study.

flick'er — the golden-winged woodpecker, also called the yellow hammer.

pi o neer' — one who goes before preparing the way for others to follow.

hi lar'i ty — merriment.

lisp'ing — a childish manner of speaking.

in'fan tile — pertaining to an infant.

quirk — an artful evasion, a sudden turn.

wile — a trick practiced for deception, allurement.

woo′ing — courting.

pate — head.

coy′ing — caressing.

scan′dal ize — to slander.

mot′ley — the costume of variegated colors worn by the court clowns in former times.

rev′el — a feast with noisy merriment.

jo′vi al — gay, joyous.

hie — to hasten.

Notes and Questions. — Why is the flicker called a pioneer? What is meant by "lispings infantile"? How did the flicker show his fondness for his mate? What is said of "his chucklings"? Why are the trees "sober and serious"? What is meant by "proper birds to scandalize"? How did the flicker try to make other birds happy? What does "Nature's motley" mean? What is meant by the "feast Nature spreads for all"? When does the author hie forth to sup with her? Explain the meaning of "drunk with new wine of the year." Describe the coloring of the yellow hammer.

I've plucked the berry from the bush, the brown nut from the tree,
But heart of happy little bird ne'er broken was by me.
I passed them by, and blessed them all; I felt that it was good
To leave unmoved the creatures small whose home was in the wood.

— William Motherwell.

MY LADY'S PLUMES

You observed the hat of the lady who walked in front of you down the fashionable part of the main street the other day. . . . You have not noticed, perhaps, that on my lady's hat are some tall, pliant plumes, long as those of the ostrich, but far more beautiful, with delicate filaments as light as frost-work on a winter window. . . .

These long, filmy plumes on my lady's hat are the plumes of the white egret. Naturally they are pure white, . . . but pure white not being barbaric enough for the use of civilization — though it used to serve Southern Indians who wore these plumes — they are dyed any color of the rainbow, losing thereby none of their gracefulness and only some of their beauty.

EGRET PLUMES

My lady's hat, if worn too long, will lose its purpose and cease to attract. She must therefore change it. The plumes in the new hat must be of different color. For these new plumes she looks to her milliner. The milliner looks to the great wholesale supply house of the metropolis. The wholesale supply house looks — and with much anxiety these days — to Thomas Jones, market shooter, or technically speaking, plumage hunter.

Thomas Jones knows where there is an egret roost, or as he will call it, a "white crane roost." Really, he does not mean a roost so much as a nesting ground, where thousands of birds nest in a small tract of the isolated wet forest or "dead-tree swamp." Such rookeries were once common in Florida, but are so no longer. Thomas Jones may know of one in Mississippi, Louisiana, or Texas, and holds himself fortunate if he does, for they are scarce enough to-day. . . .

Mind you, the plumage hunter does not go into the roost until spring has well advanced. When he reaches the roost the low trees, bushes, and grassy brush clumps are full of nests, and the nests are or soon will be full of young birds. The busy life of the colony goes on. The parents come and go, traveling no one knows how far to get food for the gaping young birds in the nest. Thomas Jones notes the high, projecting snag of the tallest tree near the edge of the colony. There is a white crane on that limb. It seems to him there always is one there. In short, it is a habit of the bird to alight on the highest branch offering itself.

Out of the thousands of nests in the vast colony, how can the parent egret pick its own nest, since all look so much alike? Thomas Jones often wonders about that, and sometimes laughs a little to himself. The parent egret has been out after food, and returns to the colony. Without a second's hesitation he picks out his own nest, and pauses for an instant directly above it, high up in the air. Then he let his long legs drop straight down and, throwing his wings up, just falls down through the air, feet first, in the most comical and awkward-looking

way in the world, though he never misses his nest by an inch, but lands just where he wanted to. As he thus backs downstairs out of the air, his long plumes, attached in a little clump at his shoulders and spreading out over his back as far down as the longest tail feathers, flare up in the air, reversed and standing up over his head as he drops, as a white garment would in the resistance of the air.

On these plumes Thomas Jones fixes his eye. He shoots an egret and satisfies himself that the plumes are "ripe," *i.e.*, in their prime condition. Then he builds his camp on the best ground he can find near by, and the next day is ready to go to work.

Surely Thomas Jones is not going to kill these birds right in the nesting season, when the helpless young are in the nest and must die also if their parents die! That cannot be possible! you say. Yet that is precisely what he is going to do. It is not his fault, he will tell you, that the plumes are not good in the fall, winter, or early spring, and are not prime until the height of the breeding season. Here are the plumes, found at much labor, reached at much danger, says Thomas Jones, blind and deaf — further than that, and there is the price offered me for them, so much an ounce, perhaps $40 an ounce, or perhaps as low as $140 a pound. Is this right to kill these birds at this time? I am not clear that we should ask this question any more of Thomas Jones than of the wholesale milliners' supply house, or of the retail milliner, or of every lady on the street. Only the fact remains, pitiless, horrible, unspeakable, that the gathering of the plumes is a harvest of death, a harvest

THE SNOWY HERON

untimely, disastrous, because it is reaped at the sowing time of life. Every egret killed for its plumes is killed when it is helpless through its blind, natural love for its offspring, and when its death means the death of all its helpless young. Does the wholesale man know this? Does he care? Does anybody know or care? Is it not the one thing to be remembered, that my lady must have her plumes? . . . White — they are white, these plumes. It is mockery. They should be the blackest sable, and they should stain black the white fingers that caress them.

But Thomas Jones cannot stop to argue. The next day he pushes quietly into the edge of the nesting ground. He ties his boat firmly within easy range of the tall snag he saw the day before. He takes out his rifle — the .22 shot will make no noise, and it will serve his purpose perfectly. There is an egret on the tall snag. Taking a steady aim, Thomas Jones fires, and the bird whirls down dead. One or two other birds start on their perches in the same tree, but settle back. One by one they, too, whirl out and lie in a white tangled mass at the foot of the tree. An egret raises herself up above the rim of the nest on which she sits, and the tiny bullet pierces her. She whirls down, lying white and motionless. The little ones gape and cry, but no food comes. The father was killed on the tree near by. One by one, out of the nests, off from the limbs of the trees, here, there, anywhere — for the birds are all about, and so stupid with the breeding fever that they will not leave — the slender white birds meet their doom. That tall snag has yielded twenty victims. Thomas Jones has not moved from his boat. He has over two hundred birds down. He can

tell by his cartridge boxes, for he rarely misses a shot. It is easy shooting.

After noon Thomas Jones goes out and gathers up his spoils. A cut of the knife and the clump of plumes is off. The carcass of the egret is left lying. Two hundred carcasses of egrets are left lying. That many more to-morrow. Many more than that the next day, for by that time the wailing of the dying young of the first day's victims will have ceased. From then on, day by day, increasing in three-fold ratio, the harvest of death goes on, steadily, pitilessly, on the sowing grounds of life, out in the silent wilderness where the birds have tried to hide their homes.

In less than a month it is over. The long white lines no longer cross the country going to and from the feeding grounds. The white forms no longer appear on the naked trees. Doubly naked the forest stands in silent desolation. Sodden and discolored, the once white forms below the trees are sinking into the slime. From beneath the trees and from the nests up in the trees a great stench goes up. Not a bird, young or old, is left alive. The old ones stayed till death came, bound by the great instinct of nature to remain with their young.

Jones, a little yellower, but not sick, for he is a healthy man, packs up his feathers carefully and hies him to the railway for a swift and secret journey out of the country. He wonders where he can find another roost next year. Behind him is desolation.

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HELPS TO STUDY

Word Study.

pli′ant — easily bent.

e′gret — a species of heron.

bar bar′ic — resembling uncivilized people.

me trop′o lis — the chief city of a country, state, etc.

tech′ni cal ly speaking — using the language of any special trade or science.

i′so lat ed — standing by itself, secluded.

i.e. — that is.

ca ress′ — to treat with tokens of affection.

car′cass — a corpse, the dead body of an animal.

vic′tim — one injured or destroyed in the pursuit of some object or by accident.

Notes and Questions. — Describe egret plumes. What is an egret roost? When are the plumes in their prime condition? Tell how the hunter secures the plumes. Why is it wrong to kill the egrets in the nesting season? Why do the birds not leave the nesting ground when the hunter appears? Describe the appearance of the nesting ground the second day of the hunter's attack. What is the condition of it at the end of a month? Why does the hunter wonder where he can find another roost next year? How can we help to prevent the shooting of the egrets?

THE PLEASANT LAND OF FRANCE

"The pleasant land of France" — so it is called, and it is well named. It is indeed a beautiful country, the fields tilled like gardens, the roadsides lined with beautiful and shapely trees, the small areas in forest given almost as much attention as our cultivated fields, the houses neat and well kept, the fields dotted with busy and seemingly prosperous workers.

The farming districts are a delight to the eye, as well as an unending source of pleasure to any one who delights in intelligent and well-directed industry. The red-tiled roofs of the stone and brick houses, the gold of the harvest fields, the dark green of the growing crops cultivated alongside, interspersed with slender and stately trees — all this makes a picture whose beauty is entirely unmarred by one gully or galled spot or weedy patch or shackly cabin or "turned out" field.

This land I see before me here was probably in cultivation for centuries before the first white man alarmed the stolid American Indian on his hunting grounds, and has made crops ever since — and yet no one thinks of saying that this French soil is "worn out" or "needs resting." With intelligent labor and prudent handling this land, a thousand years in use, is still highly productive.

And the main secret? It is here before me now — these great herds of grazing cattle in the fields alongside the growing crops, and these farmers with three-horse teams preparing the land for a new crop, rolling it and

Jules Dupré

IN THE PLEASANT LAND OF FRANCE

preparing it as thoroughly as an American would do for a garden in order that another crop may start to growing as quickly as one is taken off.

I noticed that where the wheat has been harvested a day or two the shocks are piled together on narrow strips here and there and all the land between is already broken for another planting. The land is cultivated in long strips, and there is hardly a foot of soil wasted; the wheat strip adjoins squarely the strip devoted to sugar beets, potatoes, etc., and there is no room for a weed to grow — barely enough for the horses to turn round between fields.

I recall how the Italian immigrants in Mississippi follow out this same idea, and how the neatly hoed ends of their cotton rows contrast with the ragged weed patches of the negro's fields. Here in France you see no clods, no gullies, no weeds, no poor horses and cattle, no scrub hogs, no disgraceful tenant cabins.

Hardly anywhere in the world do so many farmers own their own farms as in France — small farms, to be sure, but the intelligent small farmer here with five or ten acres lives far more comfortably than the Southern farmer owning twenty times this area who depends upon shiftless labor or shiftless methods of cultivation.

The farms are so small here that it is expensive to have improved machinery, but this difficulty is obviated by coöperative buying; five or six farmers with adjoining tracts will purchase a reaper together, or a harrow, or thresher. The strong, heavily built horses are a delight to the eye, and some oxen are also used. I saw a reaper in the wheat field yesterday drawn by two yoke of oxen.

WOMEN WORK IN THE FIELDS

Women work much in the fields; I saw numbers of them doing all sorts of work yesterday; not in any half-hearted or humdrum fashion, but healthy, intelligent-looking women who work earnestly and cheerily, simply because on these small acres every one must work if the

family is to prosper and because every member of the family takes pride in having a beautiful home and a beautiful farm, as fertile and productive as intelligence and skill can make it.

The strength of France is its millions of contented, prosperous, intelligent small farmers who own their own homes, and who make the entire country a dream of beauty and prosperous activity.

Large areas here are devoted to growing the sugar beet. Originally the beet contained so little sugar that its cultivation was barely profitable, but by long years of careful seed selection and plant breeding, the sugar content has been so largely increased that the industry is now one of very considerable proportions.

And the roads — they, too, add to the beauty of the country and to the pleasure of country life. National aid to road building and road improvement, as has been much agitated in America in recent years, is an actual working fact here in France, the main lines being built and maintained by the national government. Even the local roads are kept in superb condition, and some one recently pointed out the difference between French and American roads by showing that in France one horse is expected to carry a load of three thousand three hundred pounds twenty miles a day over rolling country, while in America one horse would carry only one thousand to one thousand four hundred pounds.

And not only are the roads themselves in the splendid condition I have indicated, but every highway is made a thing of beauty by the long lines of tall, uniform, symmetrical shade trees on either hand. These have been care-

fully planted, of course; all of one variety and equidistant. The common roads are therefore as beautiful as our city parks, and when you look out upon the varying tints of the growing and ripening crops, and the perfect proportions of each field, it seems as if the very peasants here were artists working out some vision on a canvas of earth and acres instead of on one of fabric and inches.

Usually there are no fences between one small farm and another: possibly a hedge, but more often one farmer's last row of potatoes, or a trench at most, is the dividing line between him and his neighbors.

No one looking at the farming of France can get away from the impression that just as it is a curse to a growing boy to have a fortune that he may spend recklessly, so it has been a curse to America that land has been so plentiful that the farmer has thought it no economic crime to lay waste one acre and then clear up another to take its place. Neither here nor in England would any landowner think for a moment of renting a piece of land to an ignorant tenant to butcher or maltreat in such fashion as is common in the South.

In France, as I have said, most farms are small and operated by their owners — the ideal condition; while in England the tenant is encouraged to improve and beautify his holdings; my recollection is that tenants usually lease for about ten years and are given credit at the end of that time for whatever improvements they have made.

— CLARENCE POE.

HELPS TO STUDY

Word Study.

in ter spersed′ — set here and there among other things.
un marred′ — not disfigured.
pru′dent — careful.
ob′vi at ed — prevented.
ag′i tat ed — discussed with great earnestness.
main tained′ — kept up.
u′ni form — of the same kind.
sym met′ri cal — well proportioned.
e qui dis′tant — being at an equal distance.
e co nom′ic — pertaining to domestic economy.

Notes and Questions. — Describe a farming district in France. Why is the soil not " worn out "? Why do the farmers make use of every foot of land? What is said about the size of their farms? How do they manage to have improved machinery? What can the American farmer learn from the French farmer? What do the women do on the farm? Describe the French roads. Why have American farmers been reckless in the use of their lands?

For biography see p. 177, Book Four.

And O and O
  The daisies blow,
And the primroses are waken'd;
  And the violets white
  Sit in silver plight,
And the green bud's as long as the spike end.

—JOHN KEATS.

DAYBREAK

Day had awakened all things that be,
The lark and the thrush and the swallow free,
And the milkmaid's song and the mower's scythe
And the matin bell and the mountain bee:
Fireflies were quenched on the dewy corn,
Glowworms went out on the river's brim,
Like lamps which a student forgets to trim:
The beetle forgot to wind his horn,
The crickets were still in the meadow and hill:
Like a flock of rooks at a farmer's gun,
Night's dreams and terrors, every one,
Fled from the brains which are their prey,
From the lamp's death to the morning ray.

— PERCY BYSSHE SHELLEY.

HELPS TO STUDY

Biographical. — Shelley's restless and eager spirit expressed itself in many beautiful poems. "The Skylark," "The Sensitive Plant," and "The Cloud" are models of poetic beauty and grace.

He was born at Field Place, England, in 1792, and was drowned in the Mediterranean Sea in 1822 by the capsizing of his boat.

Word Study.

mat'in — morning.

rook — a European bird resembling the American crow.

Notes and Questions. — What sounds begin at daybreak? What sounds cease with the coming day? What lights disappear with the coming of the sun? What does the poet mean by saying that the fireflies were "quenched"? To what does he liken the glowworms? How does he say night's terrors disappear?

SUMMER

No price is set on the lavish summer;
June may be had by the poorest comer.
And what is so rare as a day in June?
    Then, if ever, come perfect days;
Then Heaven tries the earth if it be in tune,
    And over it softly her warm ear lays:
Whether we look, or whether we listen,
We hear life murmur, or see it glisten;
Every clod feels a stir of might,
    An instinct within it that reaches and towers
And, groping blindly above it for light,
    Climbs to a soul in grass and flowers.

— James Russell Lowell.

TROUT

It is well for anglers not to make trout, of all fishes, the prime objective of a day's sport, as no more uncertain game loves the sunlight. To-day he is yours for the very asking; to-morrow, the most luscious lure will not tempt him. One hour he defies you; the next, gazes at you from some ensconcement of the fishes, and knows you not, as you pass him, casting, by. I believe I accumulated some of this angling wisdom years ago, in a certain trout domain in New England, where there were streams and pools, ripples, cascades, and drooping trees; where everything was fair and promising to the eyes for trout; but it required superhuman patience to lure them, and many a day I scored a blank.

Yet on these very days when lures were unavailing, the creel empty save for fern leaves, I found they were not for naught; that the real fishing day was a composite of the weather, the wind, even if it was from the east, the splendid colors of forest trees, the blue tourmaline of the sky that topped the stream amid the trees, the flecks of cloud mirrored on the surface. The delight of anticipation, the casting, the play of the rod, the exercise of skill, the quick turns in the stream opening up new vistas, the little openings in the forest, through which were seen distant meadows and nodding flowers — all these went to make up the real trout fishing, the actual catch being but an incident among many delights.

Just how long one could be content with mere scenery

in lieu of trout, I am not prepared to say; if pushed to the wall, I confess that when fishing I prefer trout to scenic effects. Still, it is a very impracticable and delightful sentiment with some truth to it, the moral being that the angler should be resourceful, and not be entirely cast down on the days when the wind is in the east. I am aware that this method of angling is not in vogue with some, and would be deemed fanciful, indeed inane, by many more; yet it is based upon a true and homely philosophy, not of to-day, the philosophy of patience and contentment. "How poor are they that have not patience," said Othello. It is well to be content with things as we find them, and it is well to go a-fishing, not to catch fish alone, but every offering the day has to give. This should be an easy matter for the angler, as Walton tells us that "Angling is somewhat like poetry; men are to be born so."

— David Starr Jordan.

HELPS TO STUDY

Word Study.

en sconce′ment — place of concealment.

ac cu′mu lat ed — gathered, collected.

su per hu′man — beyond what is human.

creel — a willow basket used by fishermen.

com pos′ite — combination.

tour′ma line — a transparent mineral of various colors.

an tic i pa′tion — expectation, the previous view of what is to happen.

vis′ta — a view through an avenue of trees.

in lieu of — instead of.

scen'ic — pertaining to scenery.
im prac'ti ca ble — not easily dealt with.
an'gler — one who fishes with hook and line.
re source'ful — having the power to overcome difficulties.
in ane' — nonsensical.
O thel'lo — the hero of Shakespeare's tragedy of the same name.
Walton — Izaak Walton, an English writer of the 17th century. He is famous for his book called "The Complete Angler."

Notes and Questions. — Why is the trout uncertain game? What is meant by "scored a blank"? What does the author say a real fishing day is? What confession does he make? What moral does he call attention to?

For biography see p. 296, Book Four.

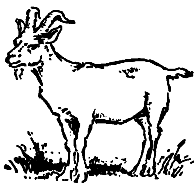
THE ANGLER'S INVITATION

Come when the leaf comes, angle with me,
Come when the bee hums over the lea,
Come with the wild flowers —
Come with the wild showers —
Come when the singing bird calleth for thee!

Then to the stream side, gladly we'll hie,
Where the grey trout glide silently by,
Or in some still place
Over the hill face
Hurrying onward, drop the light fly.

— Thomas Tod Stoddart.

THE WOODHAVEN GOAT



MAJOR Worthington was smoking his pipe upon his broad back porch at Woodhaven, and dozing in the balmy air of a faultless morning in May. His stout form was, as usual, spread over two chairs and the balustrade, and contentment rested upon him. Well might he be content. His broad fields were already ribboned with the pale green of young cotton, and all hands agreed that the "stand" was perfect. Peace reigned at Woodhaven, after many days of disquiet, and for all he had been once a man of war, no man at heart loved peace more than did this eccentric old planter.

He had tried many experiments; he had run away and marooned with Isam in slavery time, had fought a duel before the war, and had bravely worn the gray as commander of the renowned organization, the "Worthington Guards." All of which is now a part of the history of his country. To-day, the day of which the chronicler is called upon to write, no cloud dimmed the horizon of Crawford Worthington, the late Major C. S. A., and still master of Woodhaven. But it was to be an eventful day.

Isam was in the yard, under a broad elm, sitting on the well-swept ground and busy cleaning the Worthington case knives on a soft brick — an immemorial custom. His little black eyes, set deep within his wrinkled, complicated face, reflected the light flashed up by the polished steel, and he hummed softly a line from the old song, "My Gal's er High-born Lady."

Over in the orchard, at the far end of the broad back yard, an aged goat was browsing phlegmatically in the fence corners, and near the triple rows of beehives that were terraced upon plank shelving close to the back yard a strutting turkey gobbler drummed among his wives.

From time to time the goat ceased to chew, and looked curiously upon the proud fowl. Possibly he wondered how anything could be so small at one moment and so big at the next. Possibly he was wishing that this same swelling gift were his; for out in the grove there lived a gigantic ram, a bitter, uncompromising foe, and the conflicts always ended disastrously for the whiskered champion, mainly, however, because he had never been able to meet his antagonist under any recognized rules of the ring, his own inclination being to spar, and the other's to ride a tournament.

Suddenly, as he gazed and reflected, every feather on the gobbler fell into place, the whole arrangement closing like Venetian blinds, and the fowl, dropping his head close to the ground, struck the back of it with first one and then the other foot. Then he hopped about six feet, and lifted both wings, again ducking and scratching his head. Then he repeated rapidly, his wives joining in the gymnastics, and uttering sharp, crisp clucks. Presently the whole flock scattered in a panic, ran with lowered heads to the limit of the orchard, rose on wing, and sailed away into the cottonfield.

The goat looked on this performance with great interest, until the last gray form had settled and passed from sight. He even uttered a queer little laugh that shook his whiskers. Evidently, however, the oddity of

it all soon began to appeal to him, for he looked back inquisitively to the place from which his late associates had departed, his unwinking, glassy eyes full of amazement. There was no explanation in sight, nor was any suggested when he calmly went there and examined the locality more carefully. He did not even find one in the sky above, although he searched in that direction with equal deliberation.

It was while making this final survey that his attention was attracted by the low-hanging branches of a cherry tree, deep green their verdure and seemingly succulent their leaves. He dismissed the turkey puzzle, and standing upon his hind legs, beckoned to the leaves with his long, flexible lip, a mute invitation that bore no results whatever. Jumping upon a lower hive, he rested his feet upon one above, and again strained his whole frame toward the aërial pasture. Then he mounted yet higher, and with his hind feet upon the topmost hive and body perpendicular, reached the coveted prize.

It was at this moment that Isam, suspending work, fixed his eyes upon the picture, and keeping them there, began to feel about for the knives. His low, earnest voice broke the stillness:

"Mas' Craffud! Mas' Craffud!"

"Well?" The major mumbled the response from mere force of habit, his eyes still closed.

"Dere's gwine to be trouble hyah, sho'ly. Ef dere's anyt'ing 'twixt you an' de back door up dere, better move hit —"

"What are you talking about, you black rascal! Get up from there!"

"Mas' Craffud."

"Get up, I tell you, and open that gate! Don't you see Jerry coming with the plow?"

"Mas' —"

"Get up," the major thundered, and reached for his stick. Isam darted to the gate and opened it. Jerry was on the way to plow the orchard, and the way led through the yard. Any attempt to continue the interrupted warning would have been useless, for the major discovered at that moment that the mule had been geared wrong.

"Put that back-band down lower, sir!" he shouted to Jerry. Jerry was excited by the old man's temper, and a natural awkwardness was against him. "Lower yet! Lower! Now shorten those traces! The next link! The next! The next! I tell you — the next. Don't you see you are going the wrong way? Shorten the chain! Shorten! Shorten." Down went the chairs, and out came the major in a towering passion. He jerked the traces right and left, Jerry changing places with him about the pensive mule. Isam uttered a low cry and began to edge away. The goat, reaching too high, had upset the hive on which he stood, and sliding backward down the terrace, had carried several more with him.

A moment the surprised animal stood waist-deep in bees; then suddenly an electric shock went over him. He shivered, bit at his flanks, his hind leg and hip; then he jumped ten feet, and, if Isam's account of the tragedy may be accepted, swore a great shrieking oath as he began to make a rapid tour of the orchard. Round and round

the goat went, praying, cursing, and crying, the crouching negro in the yard watching him with straining eyes through the picket fence. The major's attention was arrested. He looked at the negro and then at the goat.

"What ails him, Isam?"

"Say yo' prayers, an' say 'em quick, Mas' Craffud, fer if dat goat come dis-er-way ter get shet er es mis'ry, dere's gwine to be trouble." He was edging away toward the kitchen as he spoke.

"Stop!" thundered the major. "What's all that stuff you are mumbling?"

"Pray fer him to find er low place inter de cotton, Mas' Craffud. Listen at dat! Don' you hyah 'im callin' you, honey? 'Mas' Craft-t-t'" And Isam gave an excellent imitation.

The major did not have time to finish a laugh. A few scattering bees from the wrecked hive struck into the little group, and the mule, being the largest enemy, first received their attacks. He responded by launching out with his heels as fast as he could pick them up and put them down, gradually turning in a circle and becoming involved with the plow and lines. Presently he made a rush for the gate, and finding it closed, started on a wild career around the yard, gathering bees as he gathered momentum.

Woodhaven for the time being had been converted into a two-ring circus. The goat, with his horns laid on his back, had the orchard, and the mule the back yard. As the mule came round, the excitement increased, for the plow was swinging out on the chain-traces, knocking over benches and tubs, skinning the shade trees, and

thundering against the weatherboards of the buildings. Cut off from the porch, and driven from tree to tree by the plow, the major grew desperate.

The detached kitchen, built on brick pillars, was the nearest shelter. Seizing an opportunity he rushed to it, dropped on his knees, and crawled under just in time to escape the plow, which swept away the last vestige of the steps. Jerry had dived over the outer fence and was viewing the drama from a constantly increasing distance.

No one responded to the major's stentorian commands to open the gate. Most of them were delivered at a disadvantage, for his head was bobbing in and out as the flying plow and his efforts compelled; but they were loud and fierce enough to be heard half a mile. When he began to call Isam in particular, a groan behind him drew his attention, and looking back, he saw the whites of a pair of eyes gleaming in the shadow. A mighty and elaborate imprecation begun at that moment was never concluded. The goat came over the orchard fence, with a foot of space between him and the palings — a comet from Capricornus, with ten thousand bees for a tail — and after one frantic round in search of relief, dodged the flying plow and went under the kitchen. It was this circumstance that interrupted the major's efforts to do justice to Isam's utter worthlessness.

When the goat went under the kitchen, the major retained his presence of mind, and Isam lost his. The former, knowing that bees, when angry, follow a moving object, fell upon his face, shielding it with his arms. Isam, on the other hand, rolled out from the dark corner

THE GOAT DELIVERED HIS BLOWS WITH SAVAGE ENERGY

into the yard and was knocked over as often as he attempted to arise which was as often as possible; for the infuriated goat all things were now explained; Isam was the cause of the dire disaster in which he had become involved.

Therefore he fairly leaped in the air, and delivered his blows with a savage energy which would have proved fatal to any one except an African. Isam got his enemy by the horns and tried in vain to hold him; but there were no rests or breathing spells — the bees attended to that. The man and the goat rolled over, half rose and fell, and mingled their voices like warriors of old engaged in deadly combat; but Isam's was not a defiance. In his dark hiding place, the major, lifting his face a few inches,

looked out through tears with a sudden delight at the negro's predicament, sobbing and choking with his emotion. When he heard the cry, "Help, Mas' Craffud! Run hyah, Mas' Craffud!" he frantically beat the dry soil about him with his fist for some moments.

"Better for one to die than two; it's a long sight better," the major shouted when he caught his breath. The memory of the famous conflict with the deer in the swamp had returned to him. And then he added: "Stick to him, Isam, stick to him!"

"Run hyah, Mas' Craffud! Help me turn this goat loose!"

There was a sound as of a man choking to death under the kitchen; and then between many sputterings and coughings came a hilarious shout.

"Don't cuss, Isam, don't cuss! If ever a man had a call to pray, you've got it now. Stick to him, Isam, stick to him! Whoa, goat! Whoa, goat! Who-ee!" The major fairly rolled over on his back, and kicked the kitchen floor above him until exhaustion overcame him.

The fight outside was not as long as the memorable one with the deer. Covered with bees, man and beast broke away and disappeared from the scene. The mule had crushed down a panel of the fence, and the goat passed through the gap like a flash of white sunlight. In the grove he met his hereditary enemy, ready for a tournament. He only shed a couple of quarts of bees on him and passed away, leaving the ram to start a circus of his own, which he immediately proceeded to do.

Helen, who had made several brave efforts to go to her uncle's rescue, only to be driven back indoors, finally

found the air outside clear enough of bees to permit her to approach the kitchen. She kneeled there and looked under.

"Uncle — Uncle Crawford — where are you?"

She saw the old man still stretched out under there, sobbing like a child recovering from a fit of crying.

"Don't," he whispered, pushing a hand back toward her and keeping his face averted — "don't speak to me. I am just grazing apoplexy!"

"But where is Isam, uncle?"

The portly form writhed in a sudden convulsion.

"Don't, I tell you!" he thundered. "Tell me something sad — tell me bad news. Go away — go away!"

Helen obeyed the final command. After awhile the major crawled out and came limping across the yard. Helen covered her face and turned away suddenly.

"Don't, my child, don't!" he pleaded. "If I laugh standing up, I'm gone. What? Can't find Isam! Why, I hear his voice —"

"I do, too, uncle, but we have searched high and low in vain for him."

"Nonsense; he can't be far away if we can hear him. Find him; he must be badly stung to say nothing of —" He stopped and pressed his sides, while he clenched his teeth.

But Helen could not find Isam. That plaintive, pleading voice seemed everywhere, and the owner nowhere. It was as though all of him had been lost but his voice, and go where she might that seemed to recede.

The mystery was at last solved. A negro came into the yard for water. Presently he cried out in amaze-

ment. "Da' now! Laws-a-mussy! Hyah he, Miss Helen — hyah he down in de well!" And so it was. The desperate man had performed a very timely although very perilous feat. Maddened with pain, covered with bees, and fleeing from the face of the awful goat, he had leaped upon the well-curb, grasped the chain, and rattled down into the cool waters. He was triumphantly hauled up again; but he refused to leave his place of refuge until assured that the war was entirely over. A little vinegar and soda soon restored him to his usual size.

It was many weeks before the goat could be tolled back into the yard. He would approach within three hundred feet, point his whiskers at the house for five minutes, and then go sadly away. But Isam never could, afterward, pass him in safety without a club.

One day, however, the hungry animal came gingerly into the yard and accepted some cabbage leaves from the cook. Unfortunately, little Henry Clay had tied a string to a leg of one of those iridescent beetles commonly called June bugs, and released him to hear the "zooning" noise of his wings, so pleasant to the ears of Southern children on a plantation. The beetle made one rush for liberty, reached the end of the thread, and curved past the goat's ear with the speed of a rifle ball. Have goats memory? It is likely. The goat went through the fence, taking six palings with him, ran headlong into a horse stall and hid in a dark corner. He came no more to the house.

— Harry Stillwell Edwards.

HELPS TO STUDY

Word Study.

ma rooned′ — abandoned on a desolate island.

du′al — a combat between two persons.

chron′i cler — one who writes an account.

C. S. A. — Confederate States of America.

im me mo′ri al — indefinitely ancient.

phleg mat′i cal ly — coolly, composedly.

un com′pro mis ing — unyielding.

Ve ne′tian blinds — blinds consisting of horizontal slats held together by cords.

suc′cu lent — fresh, juicy.

a ë′ri al pasture — leaves high in the air.

per pen dic′u lar — upright position.

pen′sive — sad, thoughtful.

mo men′tum — force with which any body is driven forward.

ves′tige — trace.

sten to′ri an — extremely loud.

im pre ca′tion — curse.

Cap ri cor′nus — a Southern constellation of stars.

pre dic′a ment — an unfortunate or trying position.

hi la′ri ous — merry.

he red′i ta ry — inborn, inherited.

ir i des′cent — having the colors of the rainbow.

A GOOD, CLEAN DAIRY COW

Milker in white duck suit with a sanitary milk pail, and a clean towel for drying the cow's udder after washing

THE CARE OF MILK

Great food chemists, or men who have studied foods carefully, tell us that sweet milk is an almost perfect food — that is, that it contains within itself nearly everything that is necessary to nourish the body. This is shown clearly by the fact that when a person gets sick and cannot eat ordinary food, the doctor will have him fed for a long time on nothing but sweet milk, and he will not only live, but will thrive on it.

The value of milk, however, depends a great deal on the care of the cow, on how she is milked, and on how the milk is cared for.

A MODEL DAIRY BARN

The great question is: Is the milk that we are using, pure and wholesome? All about us are "bacteria" or "germs" — little living active bodies that we cannot see without the aid of a microscope. We know that some germs are helpful to us, but that many are harmful. We want some of the friendly ones to get into our sweet milk and cause it to sour so that we may make butter.

But we know that it is a terrible thing to let unfriendly germs infect our milk. We know that it is unclean or "infected" milk that is responsible for the deaths of so many thousands of children, and responsible, also, for a great deal of sickness among older persons.

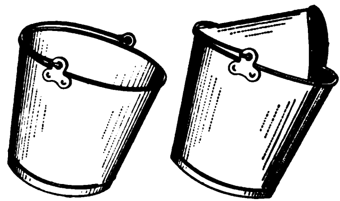
Germs, good and bad, are eager to get into milk — and with good reason. We have learned that sweet milk is a nearly perfect food. Now these little friends and enemies of ours like good food as well as we do, so they like very much to get into good, fresh sweet milk. They enjoy it, and they thrive on it, and grow and multiply in it until

there are thousands of them in a short while, especially if the milk is warm.

How can we have clean milk and prevent this trouble? In the first place we should have a clean barn. The barn should have plenty of windows to let in the air and sunshine. Hay should not be stored in the barn above the cows unless the overhead floor is very tight, for the dust falling down on the cows is liable to get into the milk at milking time. There should be a good smooth floor to the barn of cement or planks or very compact clay. This floor should be carefully raked and cleaned each day after the cows are taken out, and all of the cleanings should be taken some distance from the barn. The barn should be screened so that the flies cannot get in, for the fly, through his uncleanness, is a great menace to health.

MILKING TIME IN A CLEAN BARN

Each cow should be brushed or curried before she is milked, all of the dirt being removed from her entire body. The udder should be wiped perfectly clean with a damp cloth, or washed, if necessary, and then wiped dry before the milking is begun.



TYPES OF MILK PAILS
Which one would exclude the most dirt?

The person milking should be clean. He should wear

THE PROPER COOLING OF MILK IN A WELL-LIGHTED CLEAN MILK ROOM

a fresh white suit which is kept especially for the purpose, and his hands should be washed clean.

It is much better to teach the cow to be milked when she is not eating. The stirring and eating of the food are liable to cause dust and dirt to get into the milk.

All of the milk vessels should be of good quality, and there should be no rusty spots on them, especially on the inside. Rust spots in milk buckets are liable to catch dirt, and it is very hard to clean them as they should be cleaned. The vessels should always be clean. They should be washed well as soon as the milk is emptied from them, and then hung in the sun and air for some time. The sun and the air are great destroyers of germs.

As soon as the milk is drawn from the cow, it should be taken at once away from the barn, strained, and cooled. The sooner we cool perfectly fresh milk, the better it is.

The place where the milk is kept should be screened or protected so that no flies can get to it. This is absolutely necessary. The fly is one of the greatest carriers of all kinds of germs or bacteria. He will light on any kind of filth and get his body and feet covered with thousands of little living disease germs. If he gets into milk or lights on the butter, he will leave these germs wherever he has floundered or crawled. It is very dangerous to use milk after a fly gets into it, or to use butter over which a fly has crawled.

Remember that good fresh milk is one of our best and most wholesome foods. It is so nearly a perfect food that we might live for a long time on milk alone; but the quality and the value of it depend largely on its cleanness, its freshness, and its purity.

HELPS TO STUDY

Word Study.

chem′ists — persons learned in chemistry.

in fect′ — to poison by contact.

com pact′ — close, hard.

men′ace — threat, danger.

Notes and Questions. — Why do germs thrive and multiply in milk? How can the cow barn be made clean and wholesome? How should the cow be cleaned before milking? Describe the care the milker should take of himself. Describe a clean milk bucket. How should milk be protected from flies? What do you know about the milk you drink? Is it so safeguarded that no impurities can possibly enter it? Why do many of our cities have milk inspectors? Have you ever heard of an epidemic of a contagious disease being traced to the milk supply?

CHANGELINGS

Along the orchard's fragrant way
I walked in flower-embroidered May;
The apple trees were all alight
With opening buds of rose and white.

On the same path I pass again;
The faded grass is wet with rain;
The sweet young year is growing old;
My flowers are changed to globes of gold.

—M. F. B.

MAKING MAPLE SUGAR

I think there is no part of farming the boy enjoys more than the making of maple sugar; it is better than "blackberrying," and nearly as good as fishing. And one reason he likes this work is that somebody else does the most of it. It is a sort of work in which he can appear to be very active and yet not do much.

In my day maple-sugar making used to be something between picnicking and being shipwrecked on a fertile island, where one should save from the wreck tubs and augurs and great kettles and pork and hen's eggs and rye-and-indian bread, and begin at once to lead the sweetest life in the world. I am told that it is something different nowadays, and that there is more desire to save the sap, and make good, pure sugar, and sell it for a large price,

than there used to be, and that the old fun and picturesqueness of the business are pretty much gone.

I am told that it is the custom carefully to collect the sap and bring it to the house, where there are built brick arches, over which it is evaporated in shallow pans, and that pains is taken to keep the leaves, sticks, and ashes and coals out of it, and that the sugar is clarified; and that, in short, it is a money-making business, in which there is very little fun; and that the boy is not allowed to dip his paddle into the kettle of boiling sugar and lick off the delicious sirup. The prohibition may improve the sugar, but it is cruel to the boy.

As I remember the New England boy (and I am very intimate with one), he used to be on the *qui vive* in the spring for the sap to begin running. I think he discovered it as soon as anybody. Perhaps he knew it by a feeling of something starting in his own veins — a sort of spring stir in his legs and arms, which tempted him to stand on his head or throw a handspring, if he could find a spot of ground from which the snow had melted. The sap stirs early in the legs of a country boy and shows itself in uneasiness in the toes, which get tired of boots and want to come out and touch the soil just as soon as the sun has warmed it a little. The country boy goes barefoot just as naturally as the trees burst their buds, which were packed and varnished over in the fall to keep the water and the frost out. Perhaps the boy has been out digging into the maple trees with his jackknife; at any rate he is pretty sure to announce the discovery as he comes running into the house in a great state of excitement — as if he had heard a hen cackle in the barn — with, "Sap's runnin'!"

And then indeed the stir and excitement begin. The sap-buckets, which have been stored in the garret over the wood-house, and which the boy has occasionally climbed up to look at with another boy, for they are full of sweet suggestions of the annual spring frolic — the sap-buckets are brought down and set out on the south side of the house and scalded. The snow is still a foot or two deep in the woods, and the ox-sled is got out to make a road to the sugar camp, and the campaign begins. The boy is everywhere present, superintending everything, asking questions, and filled with a desire to help the excitement.

It is a great day when the cart is loaded with the buckets, and the procession starts into the woods. The sun shines almost unobstructedly into the forest, for there are only naked branches to bar it; the snow is soft and beginning to sink down, leaving the young bushes spindling up everywhere; the snowbirds are twittering about, and the noise of shouting and of the blows of the ax echoes far and wide. This is spring, and the boy can scarcely contain his delight that his outdoor life is about to begin again.

In the first place, the men go about and tap the trees, drive in the spouts, and hang the buckets under. The boy watches all these operations with the greatest interest. He wishes that some time when a hole is bored in a tree the sap would spout out in a stream, as it does when a cider-barrel is tapped; but it never does, it only drops, sometimes almost in a stream, but on the whole slowly, and the boy learns that the sweet things of the world have to be patiently waited for and do not usually come otherwise than drop by drop.

Then the camp is to be cleared of snow. The shanty is re-covered with boughs. In front of it two enormous logs are rolled nearly together, and a fire is built between them. Forked sticks are set at each end, and a long pole is laid on them, and on this are hung the great caldron kettles. The huge hogsheads are turned right side up and cleaned out to receive the sap that is gathered. And now, if there is a good "sap run," the establishment is under full headway.

The great fire that is kindled up is never let out, night or day, as long as the season lasts. Somebody is always cutting wood to feed it, somebody is busy most of the time gathering in the sap, somebody is required to watch the kettles that they do not boil over, and to fill them. It is not the boy, however; he is too busy with things in general to be of any use in details. He has his own little sap-yoke and small pails, with which he gathers the sweet liquid. He has a little boiling-place of his own, with small logs and a tiny kettle. In the great kettles the boiling goes on slowly, and the liquid, as it thickens, is dipped from one to another, until in the end kettle it is reduced to sirup and is taken out to cool and settle until enough is made to "sugar off." To "sugar off" is to boil the sirup until it is thick enough to crystallize into sugar. This is the grand event and is only done once in two or three days.

But the boy's desire is to "sugar off" perpetually. He boils his kettle down as rapidly as possible; he is not particular about chips, scum, or ashes; he is apt to burn his sugar; but if he can get enough to make a little wax on the snow, or to scrape from the bottom of the kettle

with his wooden paddle, he is happy. A good deal is wasted on his hands and the outside of his face and on his clothes, but he does not care; he is not stingy.

To watch the operations of the big fire gives him constant pleasure. Sometimes he is left to watch the boiling kettles, with a piece of pork tied on the end of a stick, which he dips into the boiling mass when it threatens to go over. He is constantly tasting of it, however, to see if it is not almost sirup. He has a long, round stick, whittled smooth at one end, which he uses for this purpose at the constant risk of burning his tongue. The smoke blows in his face; he is grimy with ashes; he is altogether such a mass of dirt, stickiness, and sweetness, that his own mother wouldn't know him.

He likes to boil eggs in the hot sap, with the hired man; he likes to roast potatoes in the ashes; and he would live in the camp day and night if he were permitted. Some of the hired men sleep in the bough shanty and keep the fire blazing all night. To sleep there with them and awake in the night and hear the wind in the trees and see the sparks fly up to the sky, is a perfect realization of all the stories of adventures he has ever read. He tells the other boys afterwards that he heard something in the night that sounded very much like a bear. The hired man says that he was very much scared by the hooting of an owl.

The great occasions for the boy, though, are the times of "sugaring off." Sometimes this used to be done in the evening, and it was made the excuse for a frolic in the camp. The neighbors were invited; sometimes even the pretty girls from the village, who filled all the woods

with their sweet voices and merry laughter and little affectations of fright. The white snow still lies on all the ground except the warm spot about the camp. The tree branches all show distinctly in the light of the fire, which sends its ruddy glare far into the darkness and lights up the bough shanty, the hogsheads, the buckets on the trees, and the group about the boiling kettles, until the scene is like something taken out of a fairy play. If Rembrandt could have seen a sugar party in a New England wood, he would have made out of its strong contrasts of light and shade one of the finest pictures in the world. But Rembrandt was not born in Massachusetts; people hardly ever do know where to be born until it is too late. Being born in the right place is a thing that has been very much neglected.

At these sugar parties every one was expected to eat as much sugar as possible; and those who are practiced in it can eat a great deal. It is a peculiarity about eating warm maple sugar, that though you may eat so much of it one day as to be sick and loathe the thought of it, you will want it the next day more than ever. At the "sugaring off" they used to pour the hot sugar upon the snow, where it congealed, without crystallizing, into a sort of wax, which I do suppose is the most delicious substance that was ever invented. And it takes a great while to eat it. If one should close his teeth firmly on a ball of it, he would be unable to open his mouth until it dissolved. The sensation while it is melting is very pleasant, but one cannot converse.

— Charles Dudley Warner.

From "Being a Boy."

HELPS TO STUDY.

Biographical. — Charles Dudley Warner, author and editor, was born at Plainfield, Massachusetts, in 1829. His delightful book, "Being a Boy," from which the selection, "Making Maple Sugar," is taken, is a story of his own experiences as a boy on the farm in New England.

Word Study.

e vap′o rat ed — turned to vapor.
pro hi bi′tion — act of forbidding.
clar′i fied — made clear.
on the *qui vive* (key vev) — very alert and watchful.
cam paign′ — plan of battle.
un ob struct′ed — without hindrance.
cal′drons — large boilers.
crys′tal lize — to form crystals.
Rem′brandt — a famous Dutch painter.
con gealed′ — hardened into a mass.

Notes and Questions. — Where do the sugar maples grow? When is the tree tapped for sap? How is the sap drawn off? What good does boiling do? How do we make sirup from sugar cane? How do we use the pine tree to make rosin or turpentine? What effect does this have upon the trees?

WHAT CHICKENS TO RAISE

Can you imagine a country home without plenty of chickens? I do not care to try to think of any real home that is not cheered by the presence of a bevy of these feathered friends of man. In my imaginary *home* there must be two or three lordly roosters striving to outcrow each other, dozens of hens cackling as if no hen had ever laid an egg before, and many, many little puffball chickens to swarm over the place and make things lively.

Chickens are not only a most cheerful addition to the farm family, but can easily be made a real financial asset as well. I say "easily," but I do not want to be misunderstood. If we are to make our chickens pay well, we must care for them in the right way and stop leaving them to take care of themselves. We must also have enough of them, and have good breeds.

Around every farm home we should find a great many fine chickens, and at all times there should be plenty of eggs for the family to eat, and most of the time eggs to sell. In order to have plenty of chickens it is very necessary to remember that they will not do well

unless they have good care, the proper food, and clean, healthy surroundings.

The raising of poultry on the average farm belongs properly to the housewife and to the girls, and it is a work to which they can well afford to devote time and study. Chicken raising is not only profitable, but becomes very interesting if one will study it in the proper way.

CHICKEN RAISING BELONGS TO THE GIRLS

If we expect to go into the chicken business or even merely wish to have plenty of chickens at our home on the farm, we should by all means select a good breed. There are a great many different breeds or kinds of chickens just as there are different breeds of horses, cattle, and hogs. Man has been skillful in the breeding of fowls to suit his purposes, just as he has been skillful in the breeding of other domestic animals.

A HAPPY FAMILY

There are certain breeds of chickens that we speak of as "combination" breeds — the word "combination" being used to indicate that they are of good size for table use and that they are also very good layers.

If we wish to raise chickens that will be of medium

size and give us a fair quality of meat and at the same time furnish a fair supply of eggs, we should select one of the combination breeds, such as the Wyandottes, Orpingtons, Rhode Island Reds, and Plymouth Rocks.

If we are preparing to raise chickens just for eggs, we should select one of the breeds called "egg-breeds." These chickens are usually small and active. Of course they produce some meat, but not nearly so much as those of one of the combination breeds or of the regular meat breeds. Their main business is to produce eggs. These breeds are Minorcas, Red Caps, Hamburgs, Leghorns, Spanish, and Andalusians.

There are other kinds of chickens that are raised mostly for table use, and these are bred so as to produce plenty of meat. These chickens are rather large and are not very active. They are not good layers. The breeds that belong to this class are Cochin, Brahma, and Langshan. All of these breeds have feathers on their legs.

HELPS TO STUDY

Word Study.

bev′y — crowd, flock.

fi nan′cial — relating to money.

av′er age — usual, ordinary.

Notes and Questions. — Name four combination breeds of chickens. Name five egg breeds of chickens. Name three meat breeds of chickens. What breeds have you at your home? What is the advantage of fine breeds over the ordinary fowl?

THE NATIONAL CAPITOL AT WASHINGTON

THE HOMES OF THE PEOPLE

A few Sundays ago I stood on a hill in Washington. My heart thrilled as I looked on the towering marble of my country's Capitol, and a mist gathered in my eyes, as standing there, I thought of its tremendous significance and the powers there assembled, and the responsibilities there centered — its President, its Congress, its courts, its gathered treasure, its army, its navy, and its millions of citizens. It seemed to me the best and mightiest sight that the sun could find in its wheeling course — this majestic home of a Republic that has taught the world its best lessons of liberty. I felt that

if wisdom, and justice, and honor abided therein, the world would stand indebted to this temple on which my eyes rested.

A few days later I visited a country home. It was just a modest, quiet house sheltered by great trees and set in a circle of field and meadow, gracious with the promise of harvest. The fragrance of pink and holly-hock mingled with the aroma of garden and orchard, and the air was resonant with the hum of bees and poultry's busy clucking. Inside the house was thrift, comfort, and that cleanliness that is next to godliness — the restful beds, the open fireplace, the books and papers, and the old clock.

Outside stood the master, strong and wholesome and upright; wearing no man's yoke; with no mort-gage on his roof, and no lien on his ripening harvest; pitching his crops in his own wisdom, and selling them in his own time in his chosen market; master of his lands and master of himself.

Near by stood his aged father, happy in the hearth and home of his son. As they started to the house, the old man's hands rested on the young man's shoulder, laying there the unspeakable blessing of an honored and grateful father.

As they drew near the door, the old mother appeared, with the sunset falling on her face, softening its wrinkles and its tenderness, lighting up her patient eyes, and the rich music of her heart trembling on her lips, as in simple phrase she welcomed her husband and son to their home.

Beyond was the good wife, true of touch and tender, happy amid her household cares, clean of heart and con-

science, the helpmate and the buckler of her husband. And the children, strong and sturdy, trooping down the lane with the lowing herd or, weary of simple sport, seeking, as truant birds do, the quiet of the old home nest.

And I saw the night descend on that home, falling gently as from the wings of the unseen dove. And the stars swarmed in the bending skies; the trees thrilled with the cricket's cry; the restless bird called from the neighboring wood; and the father, a simple man of God, gathering the family about him, read from the Bible the old, old story of love and faith, and then knelt down in prayer, the baby hidden amid the folds of its mother's dress, and closed the record of that simple day by calling down the benediction of God on the family and the home!

As I gazed, the memory of the great Capitol faded from my brain. Forgotten its treasure and its splendor. I said, "Surely here — in the homes of the people is lodged the Ark of the Covenant of my country. Here is its majesty and its strength. Here the beginning of its power and the end of its responsibility."

The homes of the people: let us keep them pure and independent, and all will be well with the Republic.

— HENRY W. GRADY.

Let us have faith that right makes might, and in that faith let us, to the end, dare to do our duty as we understand it.

— ABRAHAM LINCOLN.

HELPS TO STUDY

Biographical. — Henry Woodfin Grady (1851–1889), editor and author, was born in Athens, Georgia. His education was obtained at the University of Georgia and the University of Tennessee.

He was editor and correspondent of various newspapers. In 1882 he became editor and part owner of the Atlanta *Constitution.* His articles on the South attracted much attention in the United States.

His orations on the "New South" won him distinction as an orator of great ability.

Word Study.

sig nif′i cance — meaning.

a ro′ma — agreeable odor, perfume.

res′o nant — resounding.

li′en — legal claim.

help′mate — a helper, a companion.

buck′ler — a shield.

Ark of the Covenant — a chest of acacia wood overlaid with gold which supported the mercy seat with its golden cherubs and occupied the most sacred place in the sanctuary. In it Moses placed the two tables of stone containing the Ten Commandments.

Notes and Questions. — What were the author's thoughts as he gazed upon our country's Capitol? Describe the country home he visited. Give a description of the master of the house. Why was he so independent? Describe the mother. What is said about the wife and children? Describe the closing scene of the day. How did the author regard the home he had visited? What effect will such homes have upon the Republic? Why are such homes more necessary to the welfare of the country than any other one thing. What is meant by the "Ark of the Covenant of our Country"?

A BLADE OF GRASS

Gather a single blade of grass, and examine for a minute quietly its narrow sword-shaped strip of fluted green. Nothing, as it seems, there of notable goodness or beauty. A very little strength and a very little tallness, and a few delicate long lines meeting in a point, —not a perfect point either, but blunt and unfinished, by no means a creditable or apparently much-cared-for example of Nature's workmanship, made, only to be trodden on to-day, and to-morrow to be cast into the oven, — and a little pale and hollow stalk, feeble and flaccid, leading down to the dull brown fibers of roots.

JOHN RUSKIN

And yet, think of it well, and judge whether of all the gorgeous flowers that beam in summer air, and of all strong and goodly trees, pleasant to the eyes, or good for food, — stately palm and pine, strong ash and oak, scented citron, burdened vine — there be any by man so deeply loved, by God so highly graced, as that narrow point of feeble green.

And well does it fulfill its mission. Consider what we owe merely to the meadow grass, to the covering of the dark ground by that glorious enamel, by the companies of those soft, and countless, and peaceful spears. The fields! Follow forth but for a little time the thoughts of all that we ought to recognize in these words. All spring and summer is in them — the walks by silent and scented paths — the rests in noonday heat, — the joy of herds and flocks, — the power of all shepherd life and meditation, — the life of sunlight upon the world falling in emerald streaks, and falling in soft blue shadows where else it would have struck upon the dark mold or scorching dust.

Pastures beside the pacing brooks, soft banks and knolls of lowly hills, thymy slopes of down, overlooked by the blue line of lifted sea, crisp lawns, all dim with early dew, or smooth in evening warmth of barred sunshine, dinted by happy feet, and softening in their fall the sound of loving voices — all these are summed in those simple words; and these are not all.

We may not measure to the full the depth of this heavenly gift in our own land,[1] though still as we think of it longer, the infinite of that meadow sweetness, Shakespeare's peculiar joy, would open on us more and more; yet we have it but in part. Go out in the springtime among the meadows that slope from the shores of the Swiss lakes to the roots of the lower mountains.

There, mingled with the taller Gentians, and the white Narcissus, the grass grows deep and free; and as you follow the winding mountain paths, beneath arching

[1] England.

boughs, all veiled with blossoms — paths that forever droop and rise over the green banks and mounds sweeping down in scented undulation steep to the blue water, studded here and there with new-mown heaps filling all the air with fainter sweetness, — look up towards the higher hills, where the waves of everlasting green roll silently into their long inlets among the shadows of the pines; and we may perhaps at last know the meaning of those quiet words of the 147th Psalm, "He maketh the grass to grow upon the mountains."

JOHN RUSKIN.

HELPS TO STUDY

Biographical. — John Ruskin was born in London, England, February 8, 1819. He gained a prize at Oxford University in 1839, and took his degree there in 1842. While yet a student he wrote " for a very young lady " the legend, " The King of the Golden River." It is unlike any other of his books. At about this period the first volume of his " Modern Painters " was published. He was a keen observer, an able writer, and a most exacting critic. His books, on a variety of topics, have done much to cultivate taste in Great Britain and America. He died January 20, 1900.

Word Study.

cast into the oven —burned as fuel.

flac′cid — weak.

cit′ron — a tree which bears a fruit somewhat resembling a lemon.

med i ta′tion — deep thought.

em′er ald — green, like an emerald.

thym′y — covered with thyme, a fragrant, creeping flower.

down — a tract of open upland.

un du la′tion — a wavy appearance or outline.

HOME, SWEET HOME

'Mid pleasures and palaces though we may roam,
Be it ever so humble, there's no place like home;
A charm from the sky seems to hallow us there,
Which, seek through the world, is ne'er met with elsewhere,
Home, home, sweet, sweet home!
There's no place like home! there's no place like home!

An exile from home, splendor dazzles in vain;
O, give me my lowly thatched cottage again!
The birds singing gayly, that came at my call, —
Give me them, — and the peace of mind, dearer than all!
Home, home, sweet, sweet home!
There's no place like home! there's no place like home!

To thee I'll return, overburdened with care;
The heart's dearest solace will smile on me there;
No more from that cottage again will I roam;
Be it ever so humble, there's no place like home.
Home! home! sweet, sweet home!
There's no place like home! there's no place like home!

— JOHN HOWARD PAYNE.

HELPS TO STUDY

Biographical. — John Howard Payne, an American author and dramatist, was born in New York in 1791. When Payne was eighteen years old his father failed in business and the son was forced to leave college and assist in the support of the family.

He played in the chief cities of America and in London, and wrote plays. His famous song, "Home, Sweet Home," was first sung in London in 1823.

Word Study.

'mid — amid, surrounded by.
pal'a ces — magnificent houses.
hal'low — to make holy.
ex'ile — one who separates himself from his home.
splen'dor — magnificence, showiness.
daz'zles — bewilders or surprises with brilliancy.
in vain — without effect.
thatched — covered with straw, reeds, or a similar substance.
sol'ace — comfort in grief.

Notes and Questions. — In the first stanza why does the author say "there is no place like home"? For what does the exile from home wish? What does he say is "dearer than all"? What scenes in his home are recalled in the third stanza? Why will he return to his home? What promise does he make? What are the last two lines of each stanza?

Where was Payne when he wrote this poem? Why does this song touch everybody's heart?

THE FARMER'S CREED

I believe in a permanent agriculture, a soil that shall grow richer rather than poorer from year to year.

I believe in hundred bushel corn and in fifty bushel wheat, and I shall not be satisfied with anything less.

I believe that the only good weed is a dead weed, and that a clean farm is as important as a clean conscience.

I believe in the farm boy and in the farm girl, the farmer's best crops and the future's best hope.

I believe in the farm woman, and will do all in my power to make her life easier and happier.

I believe in a country school that prepares for country life, and a country church that teaches its people to love deeply and live honorably.

I believe in community spirit, a pride in home and neighbors, and I will do my part to make my own community the best in the state.

I believe in better roads. I will use the road drag conscientiously whenever opportunity offers, and I will not "soldier" when working out my road tax.

I believe in the farmer, I believe in farm life, I believe in the inspiration of the open country.

I am proud to be a farmer, and I will try earnestly to be worthy of the name.

— Frank I. Mann.

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