

TRACY & WAGNALL'S
STANDARD READER SERIES

FOR
TEACHERS' MANUAL

FOR
SECOND READER



Class LB 1573

Book F 97

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STANDARD READER SERIES

TEACHERS' MANUAL

FOR

SECOND READER

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FOREWORD

A general introduction to the entire Standard Reader Series has been published in the Teachers' Manual for the First Reader. In the following pages the material given is meant to be simply suggestive, and to supplement the lessons in the Second Reader. Unity of subject-matter is aimed at throughout the book, and the attention of the teacher is called to those sources from which additional material may be gathered. The full purpose of the Standard Reader Series is outlined in the general introduction before mentioned.

TEACHERS' MANUAL

LESSON I

The Flag: The colored picture illustrates the verse at the beginning of the text. Have the pupils talk about the flag. Either obtain or draw upon the board a perfectly proportioned flag. Have the pupils count the thirteen stripes. When it is said that the flag is twice as long as it is broad, the pupils, who have had a lesson in the First Reader on measurement (page 56), should take a ruler or a piece of string and measure it.

The symbolism of the flag should be carefully explained.

Phonetics: This consists of four words for pronunciation drill. The words, first of all, should be understood in connection with some thought—should, in fact, be used in sentences, either suggested by the teacher or by the pupils themselves. Then the words should be analyzed letter by letter

and sound by sound. For example, in the word *union*, respelled phonetically **yūn'-yun**, the **ū** (see Appendix to the Reader) sound and the **u** sound should be properly enunciated. The component consonants likewise should be studied. Then, in constructive process, the consonants, with the vowels, should be sounded until the word as a whole is given in a *pure* way.

A number of words are placed in phonetic spelling as a phonetic drill. After securing the correct pronunciation, have the pupils turn to their books and read from line to line of the text until they find the same word in the ordinary spelling, corresponding with the sound of the word given in the phonetic spelling. The following words may be used in the same way: *all, for, so, on, is, are, us, see*, etc. Other phonetic ideas are suggested, as follows:

(a) Take a simple sentence; write it upon the board; have every vowel in the sentence sounded and also every consonant. Then let the pupil go to the board and write the phonetic form of each word over the word itself, the teacher herself aiding the pupil as occasion demands.

(b) Drill on the long sound of **ū** in **ūrm**;

select those words in the text in which the *ā* sound occurs and place them upon the board. Use the words thus selected in sentences. Ask questions in which the words occur; as, "Are you an American?"

Blackboard Exercises: Draw upon the board an outline of the Stars and Stripes. To color this outline only three crayons are necessary—red, white, and blue. See that the proportions of the flag are according to the proportions given in the lesson. Have the pupils in turn go to the board and color the thirteen stripes; also let them add white dots to the field of blue, to represent the stars. Each pupil might also draw upon board, slate, or pad, the entire flag, using a small scale. Turn to page 28 of the Reader, and follow directions for making a five-pointed star.

Arithmetic: In the text is material for a lesson in arithmetic: (*a*) the proportions of the flag; (*b*) the forty-five stars for counting; (*c*) the thirteen stripes, alternating red and white, for counting. Innumerable exercises in addition and subtraction might be based on these data.

Literature for the Teacher's Use: In the First Reader a short lesson was

based upon the flag, and the Teachers' Manual gave suggestive material to be used. (See Lesson IX, Standard First Reader, and also Teachers' Manual for same, page 27.) There the story of the Star Spangled Banner is outlined. The following will prove of use in the schoolroom:

Poems: I. "Golden Numbers" (McClure, Phillips & Company), an anthology for youth, chosen and classified by Kate Douglas Wiggin and Nora Archibald Smith. Consult particularly the department called "New World and Old Glory," in which are found:

(1) The entire poem entitled "The Flag Goes By," from which one verse has been selected as an introductory to the lesson.

(2) "Battle Hymn of the Republic," Julia Ward Howe.

(3) "The Name of Old Glory," James Whitcomb Riley.

II. In "Holy-Days and Holidays" (Funk & Wagnalls Company), edited by Edward M. Deems, there is a department "Flag-Raising Day" (page 588), in which the teacher will find the following:

(1) "Our Colors," Laura E. Richards (explaining the symbolism of the colors).

(2) "The Flag of Our Union Forever," George P. Morris.

(3) "Our Country's Starry Flag," Margaret E. Sangster.

(4) "Salute the Flag," H. C. Bunner.

(5) "Flag Song," Harriet Prescott Spoford.

(6) "Star Spangled Banner," Francis Scott Key. The meaning of the words of the song should be explained. Many children have been forced to learn the words where they did not understand the meaning.

Prose: Consult "Holy-Days and Holidays." It contains (1) "The History of the Flag," (2) "The Stars and Stripes," (3) "Betsey Ross and the Flag," (4) "The School Flag," (5) "Flag Presentation." From the same book (page 589) we quote the following:

"So we see that a series and number of flags appeared — the rattlesnake, the pine-tree, and the stripes, the various designs of the different colonies — until July, 1777, when the blue union of the stars was added to the stripes, and the law adopted this flag as the great national emblem. After the adoption of this flag, a stripe was added for every new state; but as it became manifest that in time the beauty of the emblem would be marred by the enormous proportions acquired by additional states, Congress reduced the stripes to the original thirteen, and the stars were made to correspond with the number of states.

“Perhaps no flag on sea or land shows its grace and beauty of design so well as the emblem of the United States, as its proportions are perfect when it is accurately and properly made — one half as broad as it is long — the first stripe at the top red, the next white. . . .

“The Continental Congress appointed a committee to supervise the union of the different parts of the national flag, and the following description of their design and significance was prepared:

“The stars of the new flag represent the new constellation of states rising in the West. The idea was taken from the great constellation of Lyra which in the hand of Orpheus signifies harmony. The blue in the field was taken from the edges of the Covenanter’s banner in Scotland significant of the league covenant of the United States against oppression, incidentally involving the virtues of vigilance, perseverance, and justice.

“The stars were disposed in a circle, symbolizing the perpetuity of the union; the ring, like the serpent of the Egyptians, signifying eternity. The thirteen stripes showed with the stars the number of the united colonies, and denoted the subordination of the states to the Union, as well as equality among themselves. The whole was the blending of the various flags of the army, and the white ones of the floating batteries. The red color, which in Roman days was the signal of defiance, denoted daring; and the white, purity.’”

Write out a little dialogue in which the contents of the lesson and of the material here given are placed in a little dramatic piece. The children will delight in taking part in such a little play. For thirteen stripes, representing the thirteen colonies,

have thirteen children if possible. If the school is large enough to have the different stars represented by children and the different stripes also represented by children, a child at each end of the thirteen stripes, holding ribbons of red and white, a very effective arrangement could be made.

LESSON II

The Lesson: This is the first biographical sketch in the literary course of the Reader. Some incidents connected with the life of Irving are here given for classroom use. The story of Rip Van Winkle, suggested in the First Reader, should be told at greater length by the teacher, or read directly from Irving's work. The historical allusions in the text to Washington and Lincoln should be explained. On a map of the United States locate Tarrytown upon the Hudson.

From Charles Dudley Warner's "Washington Irving" (American Men of Letters Series) we quote the following :

"New York at the time of our author's birth was a rural city of about 23,000 inhabitants clustered about the Battery. It did not extend northward to the site of the present City Hall Park. . . ."

"In 1798 we find Irving passing a summer's holiday in Westchester County and exploring with his gun the Sleepy Hollow region which he was afterward to make an enchanted realm; and in 1800 he made his first voyage up the Hudson (page 28). . . . In 1802 he became a law clerk. . . ."

"His biographer, Mr. Pierre M. Irving, has given no description of his appearance; but a relative, who saw much of our author in his latter years, writes to me: 'He had dark-gray eyes; a handsome straight nose which might perhaps be called large; a broad, high, full forehead, and a small mouth. I should call him of medium height, about five feet eight and a half to nine inches, and inclined to be a trifle stout. There was no peculiarity about his voice; but it was pleasant and had a good intonation. His smile was exceedingly genial, lighting up his whole face and rendering it very attractive; while, if he were about to say anything humorous, it would beam forth from his eyes even before the words were spoken. As a young man his face was exceedingly handsome, and his head was well covered with dark hair; but from my earliest recollection of him he wore neither whiskers nor moustache, but a dark-brown wig, which, altho it made him look younger, concealed a beautifully shaped head' . . ." (page 48).

"The preliminary announcement of the History was a humorous and skilful piece of advertising. Notices ap-

peared in the newspapers of the disappearance from his lodging of 'a small, elderly gentleman, dressed in an old black coat and cocked hat, by the name of Knickerbocker.' Paragraphs from week to week, purporting to be the result of inquiry, elicited the facts that such an old gentleman had been seen traveling north in the Albany stage; that his name was Diedrich Knickerbocker; that he went away owing his landlord; and that he left behind a very curious kind of a written book, which would be sold to pay his bills if he did not return. So skilfully was this managed that one of the city officials was on the point of offering a reward for the discovery of the missing Diedrich. This little man in knee breeches and cocked hat was the germ of the whole 'Knickerbocker legend,' a fantastic creation, which in a manner took the place of history, and stamped upon the commercial metropolis of the New World the indelible Knickerbocker name and character; and even now in the city it is an undefined patent of nobility to trace descent from 'an old Knickerbocker family' . . . " (page 72).

The following is from Miss Emily Foster, who notes his kindness in observing life:

"Some persons, in looking upon life, view it as they would view a picture, with a stern and criticizing eye. He also looks upon life as a picture, but to catch its beauties, its lights—not its defects and shadows. On the former he loves to dwell. *He has a wonderful knack at shutting his eyes to the sinister side of anything.* Never beat a more kindly heart than his; alive to the sorrows, but not to the faults, of his friends, but doubly alive to their virtues and goodness. Indeed, people seemed to grow more good with one so unselfish and so gentle."

In the following paragraph (page 151) we get a glimpse of a world, however, that the author loves still more :

“Tell me everything about the children. I suppose the discreet princess will soon consider it an indignity to be ranked among the number. I am told she is growing with might and main, and is determined not to stop until she is a woman outright. I would give all the money in my pocket to be with those dear little women at the round table in the saloon, or on the grass-plot in the garden, to tell them some marvelous tales. . . .”

“Give my love to all my dear little friends of the round table, from the discreet princess down to the little blue-eyed boy. Tell *la petite Marie* that I still remain true to her, tho surrounded by all the beauties of Seville; and that I swear (but this she must keep between ourselves) that there is not a little woman to compare with her in all Andalusia.”

“The spot he chose for his ‘Roost’ was a little farm on the bank of the river at Tarrytown, close to his old Sleepy Hollow haunt, one of the loveliest, if not the most picturesque, situations on the Hudson. At first he intended nothing more than a summer retreat, inexpensive and simply furnished. But his experience was that of all who buy, and renovate, and build. The farm had on it a small stone Dutch cottage, built about a century before, and inhabited by one of the Van Tassels. This was enlarged, still preserving the quaint Dutch characteristics; it acquired a tower and a whimsical weather-cock, the delight of the owner (‘it was brought from Holland by Gill Davis, the King of Coney Island, who

says he got it from a windmill which they were demolishing at the gate of Rotterdam, which windmill has been mentioned in "Knickerbocker") and became one of the most snug and picturesque residences on the river. When the slip of Melrose ivy, which was brought over from Scotland by Mrs. Renwick and given to the author, had grown and well overrun it, the house, in the midst of sheltering groves and secluded walks, was as pretty a retreat as a poet could desire. But the little nook proved to have an insatiable capacity for swallowing up money, as the necessities of the author's establishment increased; there was always something to be done to the grounds; some alterations in the house, a greenhouse, a stable, a gardener's cottage to be built—and to the very end the outlay continued. The cottage necessitated economy in other personal expenses, and incessant employment of his pen. But Sunnyside, as the place was named, became the dearest spot on earth to him; it was his residence, from which he tore himself with reluctance, and to which he returned with eager longing; and here, surrounded by relatives whom he loved, he passed nearly all the remainder of his years, in as happy conditions, I think, as a bachelor ever enjoyed" (pages 163-164).

Chronological :

1783, April 3—Irving born in New York city.

1798—Explores region of Sleepy Hollow.

1800—First voyage up the Hudson.

1802—Law clerk.

1804—First visit to Europe.

1806—Returns to America.

1809—Publishes "A History of New York."

1811-15—European trip.

1815-16—Business worry.

1817—Death of Irving's mother; Irving still abroad.

- 1819 — First number of "The Sketch Book" published.
1820 — In Paris.
1826 — In Spain.
1832 — Irving returns to America.
1842 — Tendered the honor of the mission to Madrid.
Accepts.
1859, Nov. 28 — Irving dies.

The foregoing chronological table gives some events of Irving's life. The teacher might write a short account from this, simple enough for children to understand. Do not make such accounts dry; take those events connected with certain periods that will not only be of interest to the average child, but will tend to fix events by association with interesting stories. The tendency in writing history is not to set so much store by exact dates as by some incident typical of a certain period. So with the lives of great men. If we know about what time a man lived, what he represents in literary history, the chief characteristics of his works, etc., we have a fair knowledge of the man. The chronological table is not to be memorized by the pupil. It is for the teacher's use only; it shows at a glance the wide activity of the man.

There are other lives of Washington Irving besides the one quoted from. Mr.

Warner's "Life" is short and well written; the teacher could run through it rapidly, selecting much valuable material that space will not permit us to quote.

Remember that young children desire stories. Even in the biographical sketches the teacher should picture the author studied as the hero of the different events.

Motto: If possible let the children teach an author through what he himself has said and written. The motto given in this lesson has a very direct moral. Its full force should be grasped by the pupils.

Phonetics: The pronunciation drill consists of six words contained in the text, five of which are proper names. The first **n** sound in the word *Lincoln* is equivalent to the **ng** sound, written with a dot under the **n** [**ṇ**]. The teacher should understand the use of the mark under a letter to show the general weakening of a vowel sound. Placed thus $\underset{\curvearrowright}$, curving downward, under a letter it means that the vowel sound tends to weaken toward **u**; placed thus $\underset{\curvearrowleft}$, curving upward, it shows the weakening toward **i**. In the words *Irving* and *president* the weakened **e** sound tends very slightly toward **u**, but is not a **u** sound; the pupils

must *not* be allowed to say **prez'-i-dunt** but **prez'-i-dənt**. **au** in *Tarrytown* and **ai** in *Sunnyside* should not be emphasized as yet except in so far as these sounds are part of the word. The phonetic drill is to be upon the first line, containing examples of the various "E" sounds studied in the First Reader. The second line contains miscellaneous sounds. These phonetic drills will aid materially in fixing with clearness and definiteness in the minds of the pupils the different sounds and their unvarying symbols.

LESSON III

The Lesson: The incident of this lesson is based on Irving's "Knickerbocker History of New York." Apart from the historical facts connected with the administration of Peter Stuyvesant and of the passing of New Amsterdam into the hands of the English, which the teacher could outline for the pupils, "the good old days of Knickerbocker life" as described by

Irving in his *Knickerbocker* history should furnish interesting stories. For example, here are some passages:

“The houses of the higher class were generally constructed of wood excepting the gable end, which was of small black and yellow Dutch bricks, and always faced on the street. . . . The house was always furnished with an abundance of large doors and small windows on every floor, . . . and on the top there was perched a fierce little weathercock to let the family into the important secret—which way the wind blew. . . .

“In those good days of simplicity and sunshine the passion for cleanliness was the leading principle of domestic economy. . . . The whole house was constantly in a state of inundation under the discipline of mops and brooms and scrubbing-brushes; and the good housewives of those days were a kind of amphibious animal.

“The grand parlor was the *sanctum sanctorum*, where the passion for cleaning was indulged without control. In this sacred apartment no one was permitted to enter except the mistress and her confidential maid, who visited it once a week for the purpose of giving it a thorough cleaning and putting things to rights—always taking the precaution of leaving their shoes at the door and entering devoutly in their stocking feet. . . .

“As to the family, they always entered in at the gate and most generally lived in the kitchen. . . .

“The fireplaces were of a truly patriarchal magnitude where the whole family, old and young, master and servant, black and white—nay, even the very cat and dog—enjoyed community of privilege, and had each a right to a corner. Here the old burgher would sit in perfect silence puffing his pipe, looking in the fire with half-shut eyes, and thinking of nothing for hours to-

gether; the *goede vrouw* on the opposite side would employ herself diligently in spinning yarn or knitting stockings. In those happy days the well-regulated family always rose with the dawn, dined at eleven, and went to bed at sundown."

For further selections the teacher is referred either to the "Knickerbocker History of New York" itself, or to "The Library of the World's Best Literature" (Charles Dudley Warner), Vol. XIV, page 8,000.

Of Peter Stuyvesant, whose administration began on May 29, 1647, Irving, in his inimitable way, writes:

"Peter Stuyvesant was the last, and, like the renowned Wouter Van Twiller, the best of our ancient Dutch governors. . . .

"All this martial excellency of appearance was inexpressibly heightened by an accidental advantage, with which I am surprised that neither Homer nor Vergil have graced any of their heroes. This was nothing less than a wooden leg, which was the only prize he had gained in bravely fighting the battles of his country, but of which he was so proud that he was often heard to declare he valued it more than all his other limbs put together; indeed, so highly did he esteem it that he had it gallantly enchased and relieved with silver devices, which caused it to be related in divers histories and legends that he wore a silver leg. . . .

"I must likewise own that he made but very few laws; but then, again, he took care that those few were rigidly

and impartially enforced; and I do not know but justice, on the whole, was as well administered as if there had been volumes of sage acts and statutes yearly made, and daily neglected and forgotten. . . .

“He was, in fact, the very reverse of his predecessors, being neither tranquil and inert, like Walter the Doubter, nor restless and fidgety like William the Testy, but a man, or rather a governor, of such uncommon activity and decision of mind that he never sought nor accepted the advice of others, depending bravely upon his single head, as would a hero of yore upon his single arm, to carry him through all difficulties and dangers. To tell the simple truth, he wanted nothing more to complete him as a statesman than to think always right; for no one can say but that he always acted as he thought. He was never a man to flinch when he found himself in a scrape, but to dash forward through thick and thin, trusting, by hook or by crook, to make all things straight in the end. In a word, he possessed, in an eminent degree, that great quality in a statesman, called perseverance by the polite, but nicknamed obstinacy by the vulgar—a wonderful salve for official blunders, since he who perseveres in error without flinching gets the credit of boldness and consistency, while he who wavers in seeking to do what is right gets stigmatized as a trimmer. . . .

“There is nothing, too, like putting down one’s foot resolutely when in doubt, and letting things take their course. The clock that stands still points right twice in the four-and-twenty hours, while others may keep going continually and be continually going wrong.”

Phonetics: Exercise the pupils upon the pronunciation drill words. Group the different words under different vowel

sounds, for example, under **u** the words *Dutch, governor, sunflower*; under weakened **e**, *believed* and *belonged*.

To the Teacher: In his "Shakespeare and His Forerunners" (Doubleday, Page & Company), Sidney Lanier discusses tone-color in reading, which depends upon the predominance of certain vowel and consonant sounds contained in a word or sentence. The teacher will find this theory thoroughly discussed in the same author's "The Science of English Verse." We quote from Lanier's book on Shakespeare. Speaking of why it is we recognize the difference between a mandolin and a flute, both playing the same scale or series of tones, the author says :

"If I were in the next room where you could not see the change in the instruments, still the most unpractised ear would unerringly recognize a certain difference in this tune as played on the mandolin and as played on the flute. Now what makes this difference? It is not a difference of duration, it is not a difference of pitch, it is not a difference of intensity, because in all of these particulars the tones played are precisely alike. It is a difference of tone-color. This is the characteristic difference which enables us to distinguish the quality of tone of different instruments. If the same tune be played on an organ, a flute, a violin, a horn, a clarinet, an oboe, a human voice, we recognize it as the same tune, and we

at the same time recognize the characteristic quality of each instrument, which is known as tone-color. Now this same tone-color is the principle of difference between vowel sounds and between consonant sounds. Just as we distinguish a violin tone from a flute tone by the characteristic quality of tone belonging to each instrument, so we distinguish the vowel *o*, for instance, from the vowel *a*. If I utter the vowel *o* with the same duration of sound, the same pitch, the same intensity as the vowel *a*, you nevertheless clearly distinguish the *o* sound from the *a* sound, tho they differ neither in duration, in pitch, nor in intensity. The characteristic differences among vowel sounds, in short, are differences of tone-color. . . .

“Tone-color . . . results from the fact that all the tones ordinarily heard are composite. Just as a ray of light is composed of the three colored rays united, so each tone we ordinarily hear—whether a tone of speech such as a word or a tone of a musical instrument—is composed of subordinate tones in combination with a chief tone called the fundamental tone. These subordinate tones are called ‘upper partia’ tone, or sometimes ‘harmonics.’ Now you can easily imagine in a general way that if the ingredients of such a composite tone be changed the tone itself will be changed in some way. It is changed, and the change is one of tone-color. . . .

“Now if you will regard the buccal cavity, here the mouth, as a tube which can instantly alter itself to many different shapes and which by so doing can blot out now one set, now another set of the harmonics of any tone which may be produced by the voice, you will see immediately how the tone-colors of words—that is, the vowel sounds (mainly)—are produced and altered. When I speak the vowel *o*, for example, I have unconsciously arranged the tube of my mouth so as to produce a certain set of harmonics in combination with whatever fun-

damental tones I am employing for the utterance; if I leave *o* and speak *a* at the same pitch precisely, I have unconsciously altered the tube of the larynx and mouth so as to retain the same fundamental tone and to substitute a different set of harmonics in combination with it" (pages 18-19).

On reading this the teacher will realize how important must be the absolute purity of the different sounds composing a word. The ear should be so well trained in detecting the different combinations in human speech that a sound incorrectly given should produce as disagreeable an effect upon the hearer as discord would in an orchestra.

One of the great requirements of a good reader is the quality and the sweetness of the voice that has thorough range and control of itself. Certain lines of prose or poetry contain more vowel sounds than others. The poets select words for tonal effects. Thus we find in some poetry that open vowel sounds predominate for certain delicate effects, and that closed vowel sounds are used for deeper and more majestic effects. We find alliteration, in numerable combinations of words to produce a certain tonal color—all of which would be lost if proper consideration were not given to each tone.

LESSON IV

Phonetics: No phonetics being given in the lesson, the following are suggested:

(a) Sound all the "A" sounds in the following words: *man, have, happened, had.* (b) Sound all the "E" sounds: *laid, them, every, day, said, become, were, her, shaking.*

Phonetic Sentence: *Nau wî hav nō gūs that lêz the göld'-n egz.*

In the sentence above drill upon vowel sound by vowel sound and consonant sound by consonant sound according to the directions for holding the organs of speech given in the appendix of the Second Reader. These sounds should be uttered distinctly and with no undue effort.

Irregular Plurals: The words *goose* and *geese* are found in the text. Attention was called in the First Reader Manual to the forming of plurals by the simple addition of the letter *s*. Have short and simple

drills upon a few of the most common words that derive their plurals irregularly. For example:

man	men	half	halves
foot	feet	wolf	wolves
mouse	mice	tooth	teeth
calf	calves	shelf	shelves
elf	elves	sheaf	sheaves
life	lives	self	selves

Tell the children the following from "Æsop's Fables":

THE FOX AND THE GRAPES.

"One hot summer's day a Fox was strolling through an orchard when he came to a bunch of Grapes just ripening on a vine which had been trained over a lofty branch. 'Just the thing to quench my thirst,' quoth he. Drawing back a few paces, he took a run and a jump, and just missed the bunch. Turning round again with a One, Two, Three, he jumped up, but with no greater success. Again and again he tried after the tempting morsel, but at last had to give it up, and walked away with his nose in the air, saying: 'I am sure they are sour.'

"It is easy to despise what you can not get."

The foregoing is taken from the version of "Æsop's Fables" written and edited by Mr. Joseph Jacobs, through whose kind permission we are allowed to quote the following also:

THE FOX AND THE STORK.

“At one time the Fox and the Stork were on visiting terms, and seemed very good friends. So the Fox invited the Stork to dinner, and for a joke put nothing before her but some soup in a very shallow dish. This the Fox could easily lap up, but the Stork could only wet the end of her long bill in it, and left the meal as hungry as when she began. ‘I am sorry,’ said the Fox, ‘the soup is not to your liking.’

“‘Pray, do not apologize,’ said the Stork. ‘I hope you will return this visit, and come and dine with me soon.’ So a day was appointed when the Fox should visit the Stork; but when they were seated at table all that was for their dinner was contained in a very long-necked jar with a narrow mouth in which the Fox could not insert his snout, so all he could manage to do was to lick the outside of the jar.

“‘I will not apologize for the dinner,’ said the Stork.

“‘One bad turn deserves another.’”

To the Teacher: From the “Science of Fairy Tales,” E. S. Hartland (Charles Scribner’s Sons) we quote the following:

“The art of story-telling has been cultivated in all ages and among all nations of which we have any record; it is the outcome of an instinct implanted universally in the human mind. By means of a story the savage philosopher accounts for his own existence and that of all the phenomena that surround him. With a story the mothers of the wildest tribes awe their little ones into silence or arouse them into delight. And the weary hunters beguile the long silence of a desert night with the mirth and wonders of a tale. But imagination is not less fruitful in the higher races; and, passing through forms

sometimes more and sometimes less serious, the art of story-telling unites with the kindred arts of dance and song to form the epic or the drama, or develops under the complex influences of modern life into the prose romance and the novel. These in their various ways are its ultimate expression, and the loftiest genius has found no fitter vehicle to convey its lessons of truth and beauty."

LESSON V

Introductory: In the Reader twenty birds have been selected for the bird lessons and have been grouped according to the following scheme:

Owl	}	Birds Useful to Man.
Swallow (Barn)		
Martin (Purple)		
Woodpecker (Downy)		
Thrush (Hermit; Wood)	}	Song-Birds.
Catbird		
Meadow=Lark		
Cardinal		
Tanager (Scarlet)	}	Birds of Beauty.
Blue Jay		
Humming=Bird		
Oriole (Baltimore)		
Bluebird	}	Familiar Home Birds.
Robin		
Blackbird (Red=Winged)		
Sparrow (Chippy)		
Swan	}	Birds of Poetry and Literature.
Crow		
Wren (House)		
Bobolink		

This grouping is a practical rather than a scientific one. The teacher could arrange other groups, herself collecting interesting material about bird life. The bibliography following will cover all of the lessons on birds. We have to acknowledge indebtedness to Mr. Frank M. Chapman, of the Museum of Natural History, New York city, who examined the bird pictures for us. In our "Notes" we shall have occasion to quote from Mr. Chapman's books, which are full of suggestions for school-room work.

(1) "Bird Life," Frank M. Chapman (D. Appleton & Company). Consulting the table of contents and the index, we find:

(a) "The Bird—Its Place in Nature and Relation to Man."

(b) "The Living Bird and the Factors of Evolution."

(c) "The Colors of Birds."

(d) "The Migration of Birds."

(e) "The Voice of Birds."

(f) "The Nesting Season."

(g) "How to Identify Birds."

(h) "The Water-Birds."

(i) "The Land-Birds."

The teacher should call attention to the seasons when the birds arrive in and when they leave a particular locality. She

should also make a list of the birds of particular months, so that appropriate stories concerning them can be told at the proper time.

(2) "Birds of Village and Field," Florence A. Merriam (Houghton, Mifflin & Company). This book discusses the feet of birds and the different marked characteristics such as the tongue, the tail, the claws, and the eggs. In the appendix the author writes of the migration of birds, and a general outline for field observation is given. By field observation is meant making note of the size, color, and markings of birds; the shape of body; the shape of tail and wings; the appearance of the bird when moving; the movements of the bird on the ground; the character of the flight of the bird; the localities frequented; the kinds of food and the manner of obtaining food; the songs of birds; the time and character of the songs; the habits of birds, whether they go in flocks or form roosts, and what curious actions they perform; the nests and their location; the size of the nest; the form of the nest; the materials of the nest; the length of time the nest is used; how the nest is constructed;

how many days it takes to build; the number of eggs, the color and the markings of the same. The mention of these points will show from what an infinite number of view=points the subject may be approached. The appreciation of a bird is mostly obtained through observation, one of the fundamental principles of education.

(3) "Bird Neighbors," Neltje Blanchan (Doubleday & McClure Company).

(4) "Birds That Hunt and Are Hunted," Neltje Blanchan (Doubleday & McClure Company).

In "Bird Neighbors," the ordinary birds found around the home are described. With the discussion of each bird is given the length, a general description of the male and female, the young, the range, and the season. "Birds That Hunt and Are Hunted" is treated in the same way, only it consists of Part I, "Water=Birds"; Part II, "Wading Birds"; Part III, "Game=Birds"; Part IV, "Birds of Prey."

(5) "Among the Water=Fowl," Herbert K. Job (Doubleday, Page & Company).

(6) "Friends Worth Knowing," Ernest Ingersoll (Harper & Bros.). Among the suggestive chapters may be mentioned

“First Comers,” “Our Winter Birds,” and “Song=Sparrow and Bank=Swallows.”

(7) “All the Year Round, Part I, Autumn,” Frances L. Strong (Ginn & Company). Besides having notes for the teacher, there are interesting stories told; note “Yearly Travelers” (page 98).

(8) “Flowers and Their Friends,” Margaret W. Morley (Ginn & Company). See poem, “The Humming=Bird” (page 74).

(9) “The Bird World,” Stickney and Hoffman (Ginn & Company). See page 17 for diagram of bird, with indications of principal parts. Note the following material of interest to be found:

- “The Coming of the Birds.”
- “Bird Acquaintances.”
- “Bills of Fare.”
- “How Birds Pass the Night.”
- “Bird Homes.”
- “About Birds' Toes.”
- “Feet of Birds.”
- “When a Bird Changes His Clothes.”
- “Bird Passports.”
- “The Bird World in Winter.”
- “Bird Lodgings in Winter.”
- “Birds' Enemies.”
- “Bird Language.”
- “Birds' Bills.”
- “Bird Songs.”

(10) "Wilderness Ways," William J. Long (Ginn & Company).

(11) "All the Year Round," Part III, Strong (Ginn & Company). Contains notes to the teachers and
(*in prose*) :

(a) "How the Robin Got His Red Breast."

(b) "Origin of the Woodpecker."

(*in poetry*) :

(a) "What Robin Told."

(b) "The Pigeon and the Owl."

(12) "Little Nature Studies," Vol. 2, selections from John Burroughs (Ginn & Company). Note the following:

"The Bird and the Looking-Glass."

"How to Observe Nature."

"The Wolf in Feathers."

"Egg-Shells and Young Birds."

"Cradles of Birds."

"Hasty Observation."

At the bottom of each lesson page this book suggests subjects for conversation.

(13) "Woodpeckers," Fanny Hardy Eckstom (Houghton, Mifflin & Company).

(14) "The Ways of Wood Folk," William J. Long (Ginn & Company).

(15) "Familiar Life in Field and Forest,"

F. Schuyler Mathews (D. Appleton & Company). Consult chapters entitled:

“Early Voices of Spring.”

“Accomplished Vocalists.”

“Strange Creatures with Strange Voices.”

(16) “Curious Homes and Their Tenants,” James Carter Beard (D. Appleton & Company). The teacher will find the following suggestive:

“Birds that Build Edible Nests.”

“A Bird Borrower.”

“Eagles' Nests.”

“A City of Birds,” etc.

(17) “Story Hour,” Kate Douglas Wiggin and Nora Archibald Smith (Houghton, Mifflin & Company). See particularly the stories entitled:

“The Oriole's Nest.”

“The Babes in the Woods.”

(18) “Among the Forest People,” C. D. Pierson (E. P. Dutton & Company). Consult particularly:

“The Red-Headed Woodpecker Children.”

“The Young Blue Jay Who Wasn't Brave Enough to Be Afraid.”

“Why Mr. Great-Horned Owl Hatched the Eggs.”

(19) “Harold's Rambles,” Troeger (D. Appleton & Company).

(20) "Nature Study in Elementary Schools," Wilson (The Macmillan Company).

(21) "Handbook of Nature Study," Longe (The Macmillan Company).

Concerning Nature Poetry: John Burroughs, in the compilation of his "Songs of Nature" (McClure, Phillips & Company), had to discard many pieces which, from a poetic standpoint, were good, but which were inaccurate in their nature aspect. He says in his Introduction:

"I am surprised at the amount of so-called nature poetry that has been added to English literature during the past fifty years, but I find only a little of it of permanent worth. The painted, padded, and perfumed nature of so many of the younger poets I can not stand at all. I have not knowingly admitted any poem that was not true to my own observations of nature—or that diverged at all from the facts of the case. Thus a poem that shows the swallow perched upon the barn in October I could not accept because the swallow leaves us in August. . . .

"In a bird poem I want the real bird as a basis—not merely a description of it, but its true place in the season and in the landscape, and no liberties taken with the facts of its life history. . . . Give me a real bird first, and then all the poetry that can be evoked from it. . . .

"When the poet can give us himself (as in Keats' 'Ode to a Nightingale'), we can well afford to miss the bird."

In teaching, bring the child as close to

nature as possible and inculcate a love for the simplest things, as part of one vast design. "To me the meanest flower that blows," sings Wordsworth, "can give Thoughts that do often lie too deep for tears." There is not a detail in nature that has not its especial value, and the training to observe, compare, and contrast can in no way be better accomplished than in the study of birds.

Consult Mr. Burroughs' anthology for poems; also: (1) "Nature in Verse," Mary I. Lovejoy (Silver, Burdett & Company).

"The Robin."—Celia Thaxter.

"Margerie's Almanac."—Thomas Bailey Aldrich.

"The Mocking-Bird's Song."—J. R. Drake.

(2) "Golden Numbers," Kate Douglas Wiggin and Nora Archibald Smith (McClure, Phillips & Company). Note the following:

"Sing On, Blithe Bird."—William Motherell.

"To a Skylark."—Shelley.

"The Skylark."—Frederick Tennyson.

"The Bobolinks."—Christopher Cranch.

"To a Water Fowl."—William Cullen Bryant.

"The Eagle."—Tennyson.

"The Flight of the Birds."—Edmund Clarence Stedman.

These suggestions that are presented to

the teacher should be considered in view of the requirements of her class, which she alone knows. The teacher's task does not end with the day's work. She should devote some time to planning the work for succeeding days.

The birds in this lesson have been grouped, because of their brilliant plumage, under the heading, "Birds of Beauty."

Tanager, Blue Jay, Hummingbird, Oriole

Scarlet Tanager: Neltje Blanchan, in her "Bird Neighbors" (Doubleday & McClure Company), says that the family of the tanagers is

"Distinctly an American family, remarkable for their brilliant plumage, which, however, undergoes great changes twice a year. Females different from males, being dull and inconspicuous . . . shy inhabitants of woods. Tho they may nest low in trees, they choose high perches when singing or feeding upon flowers, fruit, and insects. As a family, the tanagers have weak, squeaky voices, but both our species are good songsters. . . . Immense numbers have been shot annually."

From the same source and A. R. Dugmore's "Bird Homes," we gather the following about the scarlet tanager:

Family.—Tanager. *Piranga erythromelas*.

Range.—North America and northern Canada; in winter, South America.

Migration.—May, October. Summer resident.

Size.—7-7.5 inches ; $\frac{1}{4}$ smaller than the robin.

Food.—Caterpillars, beetles, grasshoppers, spiders, mulberry.

Nest.—*Location*: On horizontal branches, usually in orchards. *Material*: Fine roots, tendrils, sticks, and straw.

Eggs.—*Number*: 3 to 5. *Color*: Greenish blue, spotted at large end with purple and chestnut.

Male in spring plumage: brilliant scarlet with black wings and tail; coverts greenish white. *In autumn* similar to female. *Female*: olive green above; wings and tail dark, lightly margined with olive; underneath greenish yellow.

The card in the bird-case of the American Museum of Natural History (New York) states that there are nearly 400 species of this bird, which is strictly an American bird, confined mainly to the tropics, but a few found in temperate North America. These birds are closely related to sparrows and finches.

Blue Jay: This bird belongs to the crow and jay family, noted especially for their harsh voices. The male and the female are blue, with a band of black around the neck; the under parts are dusky white; under wing coverts and tail is bright blue, striped transversely with black, and with many feathers, tipped with white; head finely crested; bill and legs black.

Family.—Crow and Jay. *Cyanocitta cristata*.

Range.—Eastern North America to plains.

Migration.—Resident.

Size.—11 to 12 inches; a little larger than robin.

Food.—Corn, insects, acorns, chestnuts.

Nest.—*Location*: Any sort of tree or bush. *Material*:

Twigs, roots, weeds, rags, strings. [*Vid.* Dugmore.]

Eggs.—*Number*: 3 to 6. *Color*: Greenish or yellowish drab spotted with reddish brown, greenish, and dull lilac spots.

Very emphatic is Neltje Blanchan as to the characteristics of this bird; she writes:

“His is a case of ‘beauty covering a multitude of sins.’ Among close students of bird traits, we find none so poor as to do him reverence. Dishonest, cruel, inquisitive, murderous, voracious, villainous are some of the epithets applied to this bird of exquisite plumage. Emerson, however, has said in his defense he does ‘more good than harm,’ alluding, no doubt, to his habit of burying nuts and hard seeds in the ground, so that many a waste place is clothed with trees and shrubs, thanks to his propensity and industry.”

Humming=Bird: Of these birds, Neltje Blanchan writes:

“Very small birds with green plumage (iridescent red or orange breast in males); long needle-shaped bill for extracting insects and nectar from deep-cupped flowers, and exceedingly rapid, darting flight. Small feet.”

On the ruby-throated humming-bird the same author has in part the following (this is condensed):

Male: brilliant metallic green above; wings and tail darkest, with ruddy=purplish reflections and dusky=white tips on outer tail=quills. Throat and breast brilliant metallic red in one light, orange flame in another, and dusky orange in another, according as the light strikes the plumage. Sides greenish; underneath lightest gray, with whitish border outlining the brilliant breast.

Family.—Humming=bird. *Trochilus colubris*.

Range.—Eastern North America; winters in Central America.

Migration.—May, October.

Size.—3.5 to 3.75 inches; about $\frac{1}{2}$ as large as the English sparrow.

Food.—Flowers, nectar.

Nest.—*Location*: Saddled on the branch of a tree. *Material*: Woolly vegetable substance, covered on inside with moss. [*Vid.* Dugmore.]

Eggs.—*Number*: 2. *Color*: White.

“Of about four hundred species of humming=birds known to ornithology, the ruby=throat is the only variety found east of the Mississippi.”

Oriole: Called also the Golden Oriole and the English Robin. [*Vid.* “Bird Neighbors” and “Bird Homes.”]

Male: head, throat, upper part of back glossy black. Wings black, with white spots and edgings. Tail=quills black, with yellow markings on the tip, everywhere else orange, shading into flame. *Female*: yellowish olive. Wings dark brown, and quills margined with white. Tail yellowish brown, with obscure, dusky bars.

Family.—Oriole and Blackbird. *Icterus galbula*.

Range.—Entire United States.

Migration.—Early May; summer resident; middle of September.

Size.—7-8 inches; $\frac{1}{5}$ smaller than robin.

Food.—Caterpillars, beetles, worms.

Nest.—*Location*: Pensile or hanging, small twigs at the end of the branch. *Material*: Grass, plant fibers, downy seed, cotton, string, lining of grass, hair, and wool.

Eggs.—*Number*: 4 to 6. *Color*: Pale gray or almost white, with lines and blotches of purplish brown.

The Lesson: The teacher should not stop with the material given in this book, nor should she feel herself pledged to use all the material suggested; if she has any facts that she thinks would be more interesting to the pupil she should make use of them.

The unity of the lesson lies in the discussion of the color of the birds. Vivid feathers are easily seen, no matter how thick the foliage may be; for this reason the tanager and the bluebird and the oriole have; more than any other birds, come within easy range of the sportsman's gun. Because the life of the mother is most important to her brood, the female is plain in color, and not exposed to the same risks as the male. Emphasize the wanton cruelty that is often inflicted upon birds of fine plumage by the thoughtless; a great number of birds are killed yearly to furnish

milliners with wings for hats. Every wing found upon a hat represents the loss of a bird life; tho many crusades have been made against this cruelty, notably the work done by the Audubon Society, the milliner is still persistent in her demand for brilliant plumage. Awaken a determination on the part of the children to do all they can to protect bird life. Hunting is an amusement, but why not hunt with a camera instead of a gun? A person will obtain just as much amusement from it, and it will certainly be much more pleasant for the birds, altho even at the sight of a camera they are rather timid. Interest your pupils in these new methods that are constantly being introduced by scientific thinkers and which, to the average child, take the form of an amusement, but which, as he grows older, will unfold in their true light and importance. Mr. Frank M. Chapman has written a volume called "Bird Studies with the Camera" (D. Appleton & Company) which is well worth reading:

"The killing of a bird with a gun seems little short of murder after one has attempted to capture its image with a lens. The demands on the skill and patience of

the bird-photographer are endless, and his pleasure is intensified in proportion to the nature of the difficulties to be overcome, and in the event of success it is perpetuated by the infinitely more satisfactory results obtained. He does not rejoice over a bag of mutilated flesh and feathers, but in the possession of a trophy—an eloquent token of his prowess as a hunter, a talisman which holds the power of revivifying the circumstances attending its acquisition ” (page 3).

Phonetics: The nine words in the pronunciation drill should be taken up in the customary way. Group according to common sounds; for example, the words *tanager* and *different* both contain the *er* sound; the words *camera* and *different* contain the *e* sound weakening toward *u*. Call attention to the difference between the weakened *e* sound in *camera* (*cam'-e-ra*) and the weakened *e* sound in *orange* (*or'-enj*), where in the latter there is a tendency toward *i*. Two words contain the short *a* sound: *camera*, *tanager*. In the *phonetic drill*, the first line contains only examples of “O” sounds.

The Words in Text: There are many words in the text which the teacher should use in pronunciation exercises. For instance: *greenish*, *tipped*, *apple*, *picture*, etc. The abbreviations *Mr.* and *Mrs.*

should be explained. Adopt the same method of obtaining clear sounds as was suggested in the Teachers' Manual for the First Reader. Have the pupil go to the opposite side of the room, and repeat the sentence: "I saw a scarlet tanager."

T.—What did you see?

P.—A scarlet tanager.

T.—What kind of a tanager?

P.—A *scarlet* tanager.

In this way the proper raising of the voice and the proper sounding of the vowels will be secured.

LESSON VI

Black Beauty: The story of "Black Beauty" by Anna Sewell, being the autobiography of a horse, created at the time of its publication a great deal of interest; it discussed what has for a long time been a disputed question among owners of horses—the advisability of using check-reins, blinkers, and crupper and of the

docking of horses' tails. Besides which, written from a human standpoint, it gave some sound raps at those who looked upon horses simply as beasts of burden. Read the story; you will find therein many incidents that will be of interest to children.

Some Wise Sayings from "Black Beauty":

[Speaking of John, his groom, Black Beauty said:] "I grew very fond of him, he was so gentle and kind; he seemed to know just how a horse feels, and when he cleaned me he knew the tender places and the ticklish places; when he brushed my head, he went as carefully over my eyes as if they were his own, and never stirred up any ill temper."

"Spirited horses, when not enough exercised, are often called skittish when it is only play."

"If I had had your bringing-up [a horse said to Black Beauty one day], I might have as good a temper as you. . . . I never had any one, horse or man, that was kind to me."

[In John's (the groom's) Philosophical Cook Book he speaks of a certain kind of food made up] "Of patience and gentleness, firmness and petting, one pound of each to be mixed up with a pint of common sense, and given to the horse every day."

"Good places make good horses."

The Lesson: Talk to the pupils concerning the different kinds of horses: the coach-horse, the saddle-horse, and the farm-horse. Tell of the old coaching-days in the

early part of the nineteenth century when there were no railways. A good description of a coaching expedition may be found in Dickens' "Nicholas Nickleby," when Nicholas leaves with Mr. Squeers for Dotheboy's Hall.

In Russia traveling is done largely in sleighs, and accounts are given of how people suffer in traveling for miles and miles with nothing but a white stretch of snow before them.

Hunting-horses are made to leap almost any obstacle in their way. They are very intelligent and obedient to the slightest bidding of the rider.

In Arabia the pedigree of a horse is written upon parchment. Some horses' genealogies extend back for nearly two thousand years. The teacher will find the story of "Gallopoff, or the Talking Pony," by Tudor Jenks (Henry Altemus) a very delightful story to read in the classroom. Two little girls are given a pony, which much to their surprise is able to talk and also to do many tricks, since at one time it was a member of a circus.

Stories About Horses : In "St. Nicholas," Vol. 22, page 719, James Baldwin tells

a story of Oliver Goldsmith and the steed that he once refused to accept. We all know what a hard time Oliver had as a young man:

“He had just finished his studies at college, and his folks wanted him to become a parson; but Oliver, not caring for this calling, not liking to wear a wig and dress in black all the time, on the day that he was to be ordained, walked in before the bishop in scarlet breeches and the brightest buckles. The bishop refused to ordain him, and then Oliver went as a private tutor to a wealthy family. Here also he did not seem to please, and a quarrel ensued in which Oliver was to blame. With the money that he had thus far earned, Oliver decided to go to the city of Cork and set sail for America. He had thirty pounds in his pocket, and after getting passage he went about the town. He was good of heart, and ready to relieve every distress, and his money gradually dwindled. The sailing of the ship was put off from day to day, until finally Oliver, going down to the wharf, discovered that a wind had suddenly come up and the vessel had sailed without him. Oliver did not take disappointments heavily, and he prepared to return to his mother. He bought a pony named Fiddleback, and mounting it, with just five shillings in his pocket, he started in his fine clothes. Then a poor woman met him and asked him for money, and he gave her most of what he had, for he was very near a friend of his, and he thought that he could get assistance from this friend, but again he was doomed to disappointment.

“Scarcely a mouthful of food did he offer him, and when Oliver told him of the strait into which he had fallen, he gave him little sympathy.

“ ‘Go,’ he said, ‘and sell your nag, and I will give you a horse that will serve you well.’ Then he got an old oak walking-stick and said, ‘Here is a horse for you.’ Oliver became very angry at this, but he forebore doing his supposed friend any great harm. A week later, astride Fiddleback, half starved, Oliver reached his mother.”

The same author tells the story of Helios, the famed charioteer, driving the chariot of the sun. See “St. Nicholas,” Vol. 22, page 576. He also wrote a series of articles on horses for “St. Nicholas” published during the year 1895. (See, for example, his articles on the “Dancing Horse of Sybans,” page 625; “Babieca, the War Horse of the Cid,” page 841; “Bayard,” page 998; “The Ship of the Plains,” page 922; “The Steed of Alexander,” Vol. 26, pp. 385–387, article by E. G. House). These, in connection with the stories told in “Black Beauty,” will form sufficient outside material for the teacher to consult concerning this lesson.

Phonetics: Eight words for pronunciation drill are given; besides which the pupil is to sound the vowels in the phonetic drill. Take one short sentence in the text and with the aid of the vocabulary printed in the Appendix put it into phonetic spelling. Upon slips of paper write out words

either in the ordinary spelling to be put into phonetic spelling, or in phonetic spelling to be put into ordinary spelling. Also take different words of the text and use them in new sentences. The teacher should explain the full meaning of such words as *blinkers*, *crupper*, *girth*, etc.

To the Teacher :

(1) It is hard to teach a child to do his work, whatever it is, carefully and trustfully; but it is a thing worth learning how to teach.

(2) An ignorant, well-meaning teacher often works more harm than a malicious, wicked teacher; for the former will be trusted often, but the latter will be suspected and the public will be on its guard.

(3) We quote a brief extract from Prof. James, "Psychology":

"When a resolve or a fine glow of feeling is allowed to evaporate without bearing practical fruit it is worse than a chance lost. It works so as positively to hinder future resolutions and emotions from taking the normal path of discharge."

LESSON VII

The teacher is referred to "Practical Work in the School Room" [Part III, Lessons on Plants; see pages 56 seq.], from which the following is condensed:

The Root: The most important part of a *root* is the *neck*, which is below the stem and leaves. If this is seriously injured the plant will die. Roots may be either *primary* or *secondary*, the secondary root growing from any part of the stem. There are (a) *terrestrial roots*, found in the ground (the oak); (b) *aquatic roots*, not attached to anything, but depending upon the food obtained by catching particles that pass through the network of rootlets (water-lily); (c) *aerial roots* (ivy). Roots have different shapes: (a) *thread-like* (grass); (b) *necklace-like*, shaped like beans; (c) *bundle-like*, similar to a bunch of radishes (buttercup); (d) shaped like *knobs* (sweet potato); (e) *cone-shaped* (carrot); (f) *spindle-shaped* (radish); (g)

turnip-shaped (turnip); (*h*) *branch roots* (tree); (*i*) *creeping roots* (strawberry); (*j*) *bulb-shaped* (lily). These are the most important shapes of roots, examples of which should be shown in the classroom; have the pupils themselves bring the different plants mentioned.

In a large city the school-garden of the country school dwindles to a box-garden. But even with this, practical results may be obtained; plant a series of seeds, so that in the gradual growth from the seed to the plant, one seed at a time can be sacrificed at a stage of its evolution to show, by actual observation, what is taking place.

Stems: (*a*) The *inside-growing* stem (grasses), scientifically known as *endogenous*, meaning those stems which have the old portion near the surface and the new among the old on the inside. (*b*) *Outside-growing* stem (oak); here the new portion is near the surface and the old portion near the center. The stem grows from the outside, next to and inside the bark, and scientifically is called *exogenous*.

The Stem Described: The *node* is the part of a stem from which a leaf grows. The *internode* is the part of a stem between

two nodes. Stems may (1) *stand* (rose); (2) *spread* (weeping willow); (3) *ascend*; (4) *climb* (ivy); (5) *lie prostrate* (cucumber); (6) *trail* (poison-ivy); (7) *creep* (strawberry).

Leaves: The parts to be studied are: (a) blade, (b) stem, (c) stalk, (d) stipules, (e) sheath, (f) ligule.

In the study of plants the teacher should see that the pupils note:

(a) Whether the leaves are opposite each other on the stem, or alternate on the stem, or placed around the stem in a whorl, or tufted, or overlapped; (b) the color of the leaves; (c) veins on leaf.

A few characteristics of the leaf that will distinguish it immediately are as follows:

(a) Kinds of bases; (b) kinds of apexes; (c) surface of leaves; (d) margins of leaves.

To the Teacher: Nothing impresses a child more than actually seeing what is described, and in the shapes of the leaves he will take great pleasure in drawing the outlines. Where pressed leaves are shown, the teacher should trace the shape on paper, and cut out the outline; then let each pupil

have one of the outlines thus cut, and in turn trace the shape of the leaf. The pattern may be drawn either on ordinary writing-paper or on cardboard, which will give stability to the sample.

Literature : (1) "Chapters in Natural History," Sir John Lubbock. Attention is called to the sections on flowers and insects, plants and insects, and fruits and seeds.

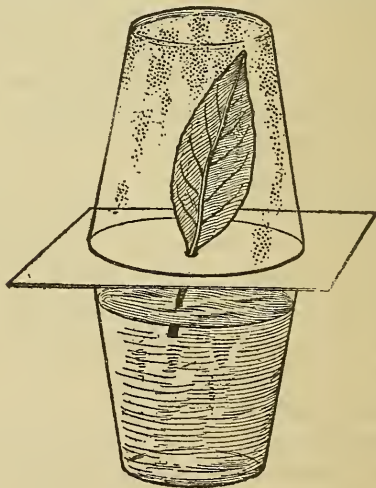
(2) "Flowers and Their Friends," Margaret W. Morley (Ginn & Company). The teacher is referred to:

(a) "The Flower"; (b) "The Calyx"; (c) "The Leaves"; (d) "The Cells"; (e) "The Pollen=Cells"; (f) "Chlorophyll"; (g) "Root=Cells"; (h) "Skin=Cells"; (i) "Tube=Cells"; (j) "We and the Plant People" [showing the difference between human beings and plants]; (k) "What Becomes of the Flowers."

Experiments in Treating of Plant=Life : By simple experiments, show how a plant obtains its food; how it is affected by the light; how it breathes, etc. For example, in Coulter's "Plant Relations, First Book of Botany" (D. Appleton & Company), note the experiments on page 31. One is suggested, showing how

the leaf gives off moisture, which could be easily used in the classroom :

“If a glass vessel (bell jar) be inverted over a small active plant, the moisture is seen to condense on the glass and even to trickle down the sides. A still more convenient way to demonstrate this is to select a single vigorous leaf with a good petiole; pass the petiole through a per-



forated cardboard resting upon a tumbler containing water and invert a second tumbler over the blade of the leaf which projects above the cardboard. It will be observed that moisture given off from the surface of the working leaf is condensed on the inner surface of the inverted tumbler. The cardboard is to shut off evaporation from the water in the lower tumbler.

“When the amount of water given off by a single leaf is noted, some vague idea may be formed as to the amount of moisture given off by a great mass of vegetation such as a meadow or a forest” (page 32).

Practical Experiments : In the New York *Tribune* was published an article entitled “East-Side Gardening,” from which we quote as follows:

“The juvenile company were on hand yesterday . . . at the De Witt Clinton playgrounds. The tent was erected and plowing began, and it looked as if there would really be a garden in time. A plot 125' x 100' will be plowed, and a small portion given to each child who will cultivate it. If he neglects it, the bed will be given to some one else.

“The vegetable-garden idea was a development of Mrs. Henry Parsons' plant club. . . . Mrs. Parsons' idea is that the children study nature theoretically in the schools, but know practically nothing of the relation of the soil to the plant. She wants them to find out for themselves what must be done to make the plant grow, and to that end she would like to see gardening a regular part of the summer-school curriculum. Vacant lots and the roofs of schoolhouses are being utilized for the purpose.”

Pronunciation Drill : The teacher should emphasize the obscure sounds, laying particular stress upon the variant or intermediate sounds such as the *ə* sound in *branch*, the *ɛ* in *cluster*.

Phonetic Drill : This contains examples of the “A,” “E,” and “I” sounds. The

teacher should drill upon other words used, phonetic spellings of which may be found in the vocabulary placed in the appendix of the Reader.

For a phonetic sentence take "The tree-trunk is covered with thick bark."

Drill individually upon every sound, both vowel and consonant. Also write sentences phonetically upon the board. It would be well to have occasionally phonetic reviews in the form of games. On slips of paper place words in phonetic spelling and in ordinary spelling. Deal these slips out to the pupils. Give about a dozen slips to each pupil. For every slip correctly sounded or correctly answered, one point should be credited to the pupil, about twenty-five points forming a game.

Story: Let the teacher tell the following story to the pupils:

Once upon a time to the palace of the King there came a fairy so small that to see him one had to look at him through a magnifying-glass. It was near spring-time, and this little man would visit place after place, going into the garden to see that everything was in readiness for the coming of spring. Now in this palace of the King there lived a gardener who was very jealous of his rights, and thought that there were none who knew better what to do for his plants than himself. So when

he heard of the arrival of the fairy he was wroth indeed, and stormed around his room, declaring that if he ever caught sight of the little manikin he would run him from the palace grounds; yes, even from the kingdom itself. One morning the gardener rose, putting the wrong foot out of bed. Oh, he was in a very bad humor, indeed! And he said to himself, "To-morrow will be spring, and I know that this little fairy will try to put in his work to-day, so," quoth the gardener, picking up a large magnifying-glass and putting it in his pocket, "I shall be on the lookout for the little fellow." Down the hall he went, and opened a large door that led from the great house to the garden. Such a beautiful garden it was, the flower-beds laid out in the shape of stars, and moons, and half-moons! The gardener picked up his rake and hoe, and started to work, sprinkling seed here and there. Soon he was surprised to hear a wee voice call:

"How do you do, Mr. Gardener, and are you getting ready for spring to-morrow? If so, you had better let me help you."

"Oh," roared the gardener, getting red in the face, "where are you?"

"Right here," said the little fairy perched upon a seed at the gardener's feet.

The gardener took his magnifying-glass, got down on his knees, and looked all around until finally he happened to spy the little fairy, who was hard at work, digging a resting place for the seed upon which he stood. Then the gardener got still more angry, and called out in a voice that almost made the little seed roll over: "Now I have you, meddlesome little man, and I shall throw you over the garden wall into the moat below."

"Not so fast, Mr. Gardener," came the little voice, "for you will never be able to catch me."

"Never!" said the gardener. "Why, here you are, and here is my hand, and I have you now."

With that the gardener made a grab, but to his great surprise out from the ground there popped a little blade of green which, instead of standing still, ran along the ground in and out among the furrows, trailing here and there, catching hold of the trunks of trees and running up the trunks in and out among the branches, down again to the ground, over the garden wall, back again to the gardener's feet, and finally this growing vine began to twine around the gardener himself, over his body, around his shoulders, down his arms, here and there jumping to his legs and binding the gardener so fast that he could not move.

"Oh, dear me!" called the gardener. "What shall I do?"

"Listen to me," said the wee voice of the little man who sat upon a leaf that almost tickled the gardener's nose. "Listen to me," he said. "In the future if you will promise to be kind to those who would help you and not haughty because you think you know everything, I will let you go. Now you are my prisoner, and he who boasts of what he can do will at length have a fall in pride just as you have had now. I am the messenger of spring, and you would not hear me. I am the messenger of spring, and you tried to kill me. It was spring who saved me, for on the point of the vine that ran along the ground I sat and you did not see me. Tomorrow will be spring, and I have to do all my work before the stroke of twelve to-night. Will you help me? Mr. Gardener, suppose we work together and to-morrow you will see what can be accomplished by two persons who work in harmony and do not quarrel."

So it was that in the King's garden that day more work was done by the gardener than he had ever done before,

and the King was surprised on the next day, and he said to the gardener, "Right royally shall you be rewarded, most faithful servant, for the wonderful work you have done. So to-day is the beginning of spring, and where the snow once hid the garden-path, where the dry twigs once were freighted with ice, now I see the tender green and the delicate colors of coming flowers, and it is all your work, most skilful gardener." The gardener bowed and hemmed and hawed, but he did not say a word about the little fairy. He went back to his work, and the little fairy went away and did not come again until the next year.

LESSON VIII

The Lesson: There are no particular flowers upon which stress is to be laid. However, the following topics have been mentioned for which material is given: (1) buttercup; (2) dandelion; (3) rose; (4) daisy; (5) a review of material in the preceding lesson; (6) calyx; (7) corolla; (8) stamen; (9) pistil.

The diagram showing the corolla, stamen, and pistil of a flower, as mentioned in the text and as given at the bottom of the color-page of the Reader, should be repro-

duced upon the board by the teacher, for ready reference.

Every complete blossom contains the essential organs, the stamen and pistil, with the calyx and the corolla. There are other flowers that do not contain all of these parts, and these flowers are called incomplete. The stamen consists of two parts: the filament and the anther, which contains the pollen. The pistil consists of three parts: the stigma, the style, and the ovary, which contains the ovule. These parts may be understood by consulting the diagram. From "Practical Work in the School Room," the following is quoted:

"*Calyx*. Lead the pupils to notice the outside part of one of the flowers (page 91), its shape and color, and then give them its name.

"*Corolla*. Next they notice the beautiful showy part most attractive to the eye, the ground or corolla, and refer to its color in different flowers. But few of them have seen green flowers, so they rightly decide that corollas are seldom green. We teach them that in books about flowers *colored* means every color but green, including white.

"*Stamens*. Taking off the calyx and the corolla leaves the stamens exposed to view. The children notice that these resemble threads; hence may be described as threadlike parts. . . .

"*Pistils*. The stamens are removed; the pupils see the remaining part and observe its position in the center

of the flower. We ask what their elder brothers use on the 4th of July and receive the ready reply: *A pistol*. This name is written on the board and beneath it the word *pistil*, so nearly similar in sound and in spelling, but so different in its meaning—the essential part of the flower. The children study calyx, corolla, stamen, and pistil until thoroughly familiar with each term."

This little book on "Object Lessons on Plants, Part III," is published by A. Lovell & Company, and the teacher should procure a copy of it for schoolroom use.

In Mrs. L. L. Wilson's "Nature Study in Elementary Schools, Teachers' Manual" (The Macmillan Company), a diagram and certain suggestions as to how to study the different parts of a plant are given (pages 18, 19, 34, 35).

The Buttercup: The common buttercup of the meadows is described by Neltje Blanchan in her "Nature's Garden" (Doubleday, Page & Company). It is a bright shining yellow, about one inch across; the stem stands erect, is branched above and hairy, two to three feet tall. It is easily found in meadows, fields, by roadsides, and in grassy places, and flowers from May to September; most common in the north of the United States.

Neltje Blanchan writes:

"The glitter of the buttercup, which is as nothing to the glitter of a gold dollar in the eyes of a practical

farmer, fills him with wrath when this immigrant takes possession of his pastures. Cattle will not eat the acrid, caustic plant—a sufficient reason for most members of the *Ranunculaceæ* to stoop to the low trick of secreting poisonous or bitter juices. Self-preservation leads a cousin, the garden monk's-hood, even to murderous practises. Since children will put everything within reach into their mouths, they should be warned against biting the buttercup's stem and leaves, that are capable of raising blisters" (pages 292 seq.).

The Dandelion: From "Familiar Flowers of Field and Garden," F. Schuyler Mathews (D. Appleton & Company), the following is gleaned:

The dandelion is a rich golden flower transplanted from Europe, and it is common in pastures and fields, blooming from April to September.

"A dandelion placed under the magnifying-glass is one of the grandest studies in gold and yellow that can be imagined." (See Lowell's poem beginning "Dear common flower that grow'st beside the way.")

Neltje Blanchan in her "Nature's Garden" writes that the dandelion is one to two inches across; contains one hundred and fifty to two hundred perfect ray florets; leaves runcinate; blooms in lawns, fields, and grassy waste places. Its root penetrates very far down into the earth.

“Quantities of small bees, wasps, flies, butterflies, and beetles—over a hundred species of insects—come seeking the nectar, that wells up in each little tube, and the abundant pollen, which are greatly appreciated in early spring, when food is so scarce” (pages 342 seq.).

Comparison : In the season in which these two flowers bloom, have the children bring them to the classroom and examine them carefully. Let them note the difference: *first*, in color; *second*, in shape; *third*, in leaves; *fourth*, in petals, etc. Talk about the flower and analyze it, emphasizing the difference between *tearing* a flower to pieces for the sake of knowing something about it, and tearing it to pieces thoughtlessly, simply for the sake of tearing.

Children will take great delight also in gathering flowers and pressing them in such a way that particular parts will be preserved for future examination. A school-book of specimens could in this way be prepared, compiled by the children, to be exhibited to the parents on certain days.

Acute Observation :

“The school should be to the pupil,” writes Felix Adler, “not an intelligent drill-ground, but a second home, a place dear at the time and remembered ever after, a place in which the whole future, and especially what is best in the pupil himself, may expand and grow.”

This is an important point to bear in mind in the teaching of nature lessons. Nature is not planless, and those who have eyes and see not miss most of the joy of outdoors. The child should be made to feel that observation, *acute observation*, results in a pleasure that is keenly alive to the slightest variations. Each child should be given an opportunity to see the flowers mentioned in the text or drawn in the color-picture. Outline-drawings, with indications of the chief parts of a plant, should be shown to the pupils. After the parts have been sketched upon the board, the pupils should draw on paper the shape of the part being described; in this way they will obtain an *intimate* knowledge of what is being talked about.

Phonetics: Pronunciation of difficult words in the text should have careful drill; the words should be analyzed sound by sound and grouped, as before suggested, according to some sound *common* to the group. The meaning of each word should be understood, and the word should be used in short sentences. When the word *Eskimo* is reached, tell something of Eskimo children and the life in the North. The

teacher should consult the book entitled "Little Folks of Many Lands," Miln (Charles Scribner's Sons), and for her own use, the general atmosphere of the northern country may be found in Jack London's novel, "The Daughter of the Snows" (D. Appleton & Company). On a map show how far it is from Africa to Labrador.

Definitions: The pupils should not memorize sounds, but should understand the meaning of each word, to be used in special sentences. In this lesson the dictionary idea is suggested, in defining such words as *calyx*, *corolla*, etc., based on the Introductory Standard Dictionary of the Standard Series. This idea should be used sparingly, but *should be used*. Explain what a dictionary is. Have the pupils turn to a dictionary and find the different words occurring in the text. The teacher might place a few words on the board with simple definitions, which could be used in sentences.

Reading: It has been suggested that at the beginning of each lesson the teacher read the text and then discuss with the pupils the different points found therein. After this the pronunciation drills should

be used in connection with whatever phonetic suggestions are given. As soon as the child's interest is aroused, have the different words of the text sounded, and then, with occasional aid from the teacher, the pupil may read the text himself, not in a *verbal-memory* way, but with the direct force of *understanding*.

LESSON IX

The Poem: This piece, by John Kendrick Bangs, is given to be memorized. Read it to the child; then talk about the picture. After a number of readings, the piece will be remembered by the pupil. The teacher must see, however, that this does not degenerate into mere verbal memory. More and more is emphasized the fact that *meaning, understanding, result in culture*.

The text has likewise been put in phonetics, not for the pupil to read so much as for him to reach the correct pronuncia-

tion of the different words, according to our system of phonetic indication.

Phonetic Text: Each word is to be analyzed in the same way as has heretofore been suggested. The different words with *common* sounds should be arranged in columns upon the board, and wherever a system may be adopted in the presentation of these sounds, giving the same unity as suggested in the arrangement of the long, short, and variant vowel sounds, the teacher will find it of great help in making clearer the phonetic symbols. That the Scientific Alphabet will meet with much opposition from those who are wedded to the old system is to be expected, but to a fair-minded person who examines the system well, it will be found that it is by far the easiest as well as the most logical system that is now in use.

Paper-Folding: The diagram, as given on page 28 of the Reader, shows how, with five foldings of a piece of paper, a five-pointed star is made. The teacher should give to the children paper that is folded without being easily torn. A perfect square as indicated in Fig. 1 should be cut out by the child and folded exactly

in half, as shown in Fig. 2. The point *b* shown in Fig. 2 should be brought over to the diagonal line running from the line *ab* to an opposite corner of the diagram; the result will be as shown in Fig. 3. In Fig. 3 the point indicated by the letter *c* should be brought over to the point *b*, as in Fig. 4. The point *a* as indicated in Fig. 4 should now be folded on the opposite side, the result being shown in Fig. 5. The dotted line starting midway between *a* and *d* of Fig. 5 indicates where the paper should be cut, the lower portion forming the star.

The teacher should herself make this paper star several times before showing it to the pupils. And when she does use it in the classroom, it should be used with some system, so that there will be no confusion while the work is going on. If the children find it difficult to make, the teacher should give as much attention to each child as the time will warrant. When this star has been made many times, the teacher, if she possesses a Standard First Reader, should turn to page 42 and make the paper boat therein indicated by a diagram, and described in the Teachers' Manual accompanying the book.

“St. Nicholas” Magazine contains full directions for making paper boxes. By consulting the cumulative index, the teacher will be able to procure from some library back numbers of this book for reference.

LESSON X

Conduction : This is the first lesson based on elementary physics. It has been selected because it may be easily demonstrated in the classroom. The term *conduction* is used in physics, but to the child the teacher should say that the lesson is one telling how heat passes through objects with which it comes in contact. The child should be told that the source of all terrestrial heat is the sun; here is a good opportunity to draw upon the board a diagram of the earth and of the earth's orbit around the sun, showing how the quantity of heat reaching the earth changes from time to time, resulting in a change of season.

We know that a spoon placed in a flame will soon become hot, and we know it is

hot when we can no longer hold the part that is heated. If we take a glass rod that is cold and put it in the flame, we can hold it for some time. If we place an iron rod in the flame, we can hold it, but not quite as long as we held the glass rod. A brass rod will become hot very soon after being placed in the flame.

A child while these experiments are being shown must be impressed with the fact that he is *learning something* and is not *playing* with fire.

The Apparatus: A simple apparatus could be constructed by the teacher for showing the experiment. Take a box and have three holes bored in it on both sides just large enough to allow three rods of equal size and length to slip in. Around the edges of these holes, it would be well to place some non-conducting material, as cork; if the rods were placed next to the wood when heated, the wood might catch fire. On the end of *each* rod stick a wax ball; take three spirit-lamps or Bunsen burners and place one under the free end of each rod. To see the results, let the pupils stand before that side of the box which shows the wax balls. To test whether the

text has been thoroughly understood ask the following questions:

- (1) Which wax ball do you think will drop off first?
- (2) Why will it drop off first?
- (3) If we place a flame at one end of a rod, why is it that we do not have to place a flame at the other end of the rod to make that end hot also?
- (4) If the wax ball on the brass rod drops off first what does that show?

When the experiment has been shown to the pupils, explain to them that because heat travels so rapidly in copper and iron they are called good conductors, the word *conductors* meaning *carriers of heat*. The glass, because of the long time it takes for heat to travel through it, is called a bad conductor.

From "Science Readers, Book V," by Vincent T. Murché (Macmillan & Company), we quote the following:

"The metals are the best conductors of all, but they differ very much one from the other. They stand thus in the order of their conducting power:—Silver, copper, gold, brass, tin, iron, lead, platinum, and bismuth—silver being the best. Among the bad conductors are:—Marble, stone, brick, glass, earthenware, sealing-wax, leather, wood, linen, cotton, and straw.

"The non-conductors include bone, horn, feathers, down, fur, wool, flannel, silk, hair, cork, india-rubber, and air."

Air is thus the poorest medium through which heat can pass. If air were a good conductor we should all burn up because of the sun's heat.

Explain to the pupil that through simple observation of what actually happens some of the greatest discoveries have been made. Through the boiling of water in a teakettle the steam-engine was gradually evolved. So Franklin discovered the principles of the lightning-rod by means of a kite.

Phonetic Drill: The meaning of each word in the pronunciation drill is to be understood, and to be used in a sentence. The phonetic drill is to be upon the first line of words in phonetic spelling, containing "I," "O," and "U" sounds. The second line has miscellaneous sounds. The phonetic sentence should be taken and each sound thoroughly analyzed. All silent letters are preceded by a half-parenthesis; in such words as *fire*, the **ai** diphthong should not be treated fully, as it will be given in a future lesson.

To the Teacher: From "Psychology in the Class Room," Dexter and Garlick (Longmans, Green & Company), the following is quoted:

“Variety is an important factor in the cultivation of the attention, but the teacher must be discreet as to its use. It is a bad plan in an object-lesson to have a table crowded with attractive objects. Those objects not in immediate use should be kept out of sight. The aim should be to prolong the act of involuntary attention; the object should not be discarded until its most salient features have been observed and discussed by the class. The teacher must ‘beware of the peep-show order of excitement,’ in which so many things are seen that practically nothing is seen at all. Variety can, however, be usefully employed in the sequence of lessons. When attention of one kind (say to sights) is getting wearied, the attention of another kind (say to sounds) may be evoked and retained. The attention may flag at the end of an arithmetic lesson, yet the singing lesson which succeeds will arouse and maintain it” (page 43).

(1) Progress means give more and more rest to the body and more employment to the minds of the millions.

(2) After getting all suggestions possible the teacher should weave her own theory, thread by thread, out of her experience in the schoolroom.

(3) One should go to school to learn to use his eyes, his hands, his ears; to compare things, to form judgments, to adapt ends to means.

(4) No education will ever be secured except by the consent of the pupil.

LESSON XI

A review of three of the vowels with their long, short, and variant sounds is here given. Take up each vowel sound and treat the long vowels as a prolongation of the short vowels without any change in the positions of the vocal organs. The words are in most cases found in the texts of the preceding lessons.

This review could be treated as a game: (1) Make a list of about ten words containing examples of the long and short vowel sounds; place these upon a blackboard and have a pupil come to the board and in a parenthesis next to the word write the symbol representing the vowel sound that is most important; where there are more than one vowel sound have these also placed in a parenthesis; for example in the word *after*, the *a* and the *er* should be placed with their correct diacritical marks next to the word itself. (2) Upon about twenty-five cards place words containing examples of

long and short vowel sounds; have these cards placed face downward in the middle of a table; the pupils arranged around the table take turns in drawing from the pack one card at a time. If A sounds the vowel correctly, the card is taken by A; then should B not recognize the sound assigned him, the card that B has is passed to C; if the sound is correctly given by C, he claims the card, and so on around the table. After the twenty-five cards have been used, the pupil who has the most cards wins the game.

LESSON XII

Trees: In accordance with the unity of the different lessons in this Reader, the study of trees is begun with those whose fruit furnishes food to man. The diagrams showing the important parts of the tree should be carefully studied both by pupils and teacher, and the outlines of the leaves, the general appearance of the tree, and the way the leaves grow on the stem carefully noted. In the city the teacher should take

the class to the parks and study the different trees. In suburban towns or in the country, opportunities are at hand every minute of the day to make the nature lessons vital and understandable. Map out talks with the children and let them draw the nuts of the special trees in outline upon the board. Crack the nuts and show the children the way in which the meat of the nut is placed in the shell. Besides emphasizing the characteristics of each leaf separately, compare the leaves of two or more of the trees, having the child tell in what way they differ in shape.

The teacher should not wait until the lesson hour to plan her lesson, nor should she rely wholly upon the material presented in the Teachers' Manual.

Stories : Let the teacher talk about the way in which the squirrels store nuts in the different trees or in the ground for the winter months (see John Burroughs' "The Squirrel and Other Fur-Bearers," Houghton, Mifflin & Company).

Phonetics : Select from the text any words which you believe to be confusing to the child in pronunciation and also in meaning. After sounding them phonetically use

the words in sentences. If time permits, take several sentences in the text and put them into phonetic spelling, in the same way as was indicated in previous lessons.

The Trees: From "Familiar Trees," by F. S. Mathews (D. Appleton & Company), the following has been selected:

"The fact is, a tree is built up far more by the sun and the atmosphere than it is by the soil from which it grows. In the delicate structure of the leaf, which, upon close examination, we will see is composed of a complicated network of nerve-like 'veins,' carbonic-acid gas is broken up into carbon, which is retained by the tree to form its woody structure, and into oxygen, which is liberated and passes into the atmosphere. Each leaf, therefore, is a builder and an air-regulator of a nature which is beneficial to us. Its capacity for heat and sunshine is something astonishing. I have estimated that a certain sugar-maple of large proportions, which grows near my cottage, puts forth in one season about four hundred and thirty-two thousand leaves; these leaves combined present a surface to sunlight of about twenty-one thousand six hundred square feet, or an area equal to pretty nearly half an acre. Every inch of this expanse breathes in life for the tree, and out health for man, while it absorbs in the aggregate an enormous amount of heat and sunlight. In time of rain it also holds the moisture, and allows it to evaporate by slow degrees when hot days return. The forests are vast sponges, which, through the agency of leaves, soak up the beneficent raindrops and compel them to pass slowly through shaded channels to the parched lands beyond. It is, indeed, quite impossible to overestimate the value of the billions and billions of

leaves which work and build for the benefit of humanity. Only forty per cent. of a tree is utilized by the woodsman; the pity of it is that the waste is so fearfully out of proportion to the gain. I do not say that a waste of leaves is a very serious loss, but I do say that a wanton destruction of more than half the tree, with its thousands of leaf-workers, is inexcusably careless" (pages 15-16).

Food-Trees :

SUGAR-MAPLE.

Name.— Maple (Sugar). *Acer saccharum*.

Family.— Soapberry.

Species.— Sugar.

Height.— Often 120 feet.

Distribution.— Throughout eastern North America.

Bark.— Dark, deep longitudinal furrows, shaggy.

Color of wood.— Light brown tinged with red.

Description of wood.— Heavy, hard, strong, tough, close-grained, capable of fine polish.

Use of wood.— Interior furnishings of buildings, furniture, fuel.

Shape of leaf.— 3 to 5 inches long and of greater breadth; base, heart-shaped by narrow sinus or truncate or wedge.

Color of leaf.— Bright or dark green.

Color of leaf in autumn.— Crimson, orange, clear yellow.

Time of flowering.— May.

Fruit.— Two samaras; called also *keys*.

The maple is one of our finest trees, often rising in the forest without putting forth a single branch until one hundred and twenty feet above the leaves spread out. The foliage is very dense. Harriet

L. Keeler, in her book "Our Native Trees" (Charles Scribner's Sons), says: "It has learned to labor and to wait. It can grow as tall as any of its forest companions, and it also knows how to prosper while young, in the shade. Consequently, there is always a young maple in training, ready to take the place of any dead or dying tree."

The teacher is advised to consult this book of Miss Keeler's; we have used it as the basis for our lessons, and many valuable suggestions may be gleaned from it other than the few facts we give herewith.

Many authors and poets have called attention to the brilliant coloring the maple gives to our forests during the fall. "It glows in red which deepens into crimson, it flames in yellow that darkens into orange. . . . Sometimes a single branch will turn bright scarlet while all the rest of the tree remains green." (Read on page 70 of Miss Keeler's book the interesting discussion why leaves turn in color and why the falling leaves show no wounds on the tree.) "The great leaf-fall of the Northern States comes some time between the 15th and 25th of October."

There are other members of the maple

family the teacher may talk of, as the mountain-maple and the silver and red maples.

Emphasize the industry of maple-sirup and sugar-making.

Maple-Sugar: Mr. Mathews, writing on the maples, says that the autumnal coloring of the sugar-maple gives it first place among beautiful American trees. It has foliage of a decidedly rugged character, with greenish-yellow flowers; the seeds are winged; the trunk divides eight or ten feet from the ground into three or four branches; the leaf is smooth, dark green, and glossy.

“There is a sensitive, if not a human, quality in a [sugar-] maple which responds to kindness, and rewards the caretaker with an abundance of sugar without injury to its own life. There are, however, careless and ignorant farmers who bore their trees in several places at once, or out of season, and as a consequence the exhausted trees die sooner or later, according to the measure of the abuse. To tap a tree in threatening or stormy weather, or before the temperate genial warmth which is usually brought by the south wind, is considered by some sugar-makers an ill-advised proceeding; the weather must be neither too hot nor too cold to obtain the best flow of sap.

“The methods employed to-day in the making of sugar are quite scientific compared with those in practise twenty years ago. A patent evaporator, with an infinite length of trough through which the sap flows, now takes

the place of the long pan over the bricked-in log fire. Also, in place of the wooden tap or spout for the tree, a new galvanized iron one (which does not clog up the pores) is in common use. The sap is evaporated to a certain point in the production of sirup, and it passes through a process of still greater evaporation in the making of sugar. In my own judgment, the sugar made by the old-fashioned, boiling-down method possesses the highest and best flavor; but in the market the super-refined, lighter-colored sugar made by the patent evaporators is of course considered much finer, and brings a higher price" (page 200).

The teacher is referred to the following, found in "Trees in Prose and Poetry," ed. by Gertrude L. Stoner and M. Grace Fickett (Ginn & Company):

(a) "Maple Leaves," Thomas Bailey Aldrich.

(b) "October Colors," Helen Hunt Jackson.

(c) "The Legend of the Maple," E. L. Ogden.

(d) "The Maple," James Russell Lowell.

(e) "The Red Maple," Henry David Thoreau.

In her "Nature Studies in Elementary Schools" (The Macmillan Company), Mrs. L. L. Wilson writes (*vid.* page 221): "The usual amount of sap given by a tree in a season is twenty-five gallons, which yields

about five pounds of sugar. Formerly the sap was boiled in long pans over a bricked-in log fire, but nowadays it is put in one end of a patent evaporating-machine, and comes out at the other as sirup."

CHESTNUT

Name.—Chestnut. *Castanea dentata*.

Family.—Beech.

Species.—Chestnut.

Height.—100 feet.

Distribution.—From Maine to Michigan and south to Tennessee and northern Alabama.

Bark.—Grayish brown, divided by shallow, irregular fissures into broad, flat ridges.

Color of wood.—Reddish brown.

Description of wood.—Light, soft, coarse-grained, not strong, easily split, very durable.

Use of wood.—Manufacture cheap furniture, interior houses, railway-ties, fence-posts, rails.

Shape of leaf.—6 to 8 inches long, acute or wedge-shaped, base coarsely serrate, feather-veined.

Color of leaf.—Dark green above, shining yellow beneath.

Color of leaf in autumn.—Rusty yellow.

Time of flowering.—May.

Fruit.—Nuts.

Consult some nature manual, of which many are published; for example: "Handbook of Nature Study," Lange (The Macmillan Company); "Nature Study in Elementary Schools," Wilson (The Macmillan Company),

The trees of this part of the beech family attain enormous size, and live for many years. "The species has the peculiarity of sending forth vigorous shoots from a stump; and these, growing in a sort of brotherhood, finally unite into a single tree."

Among the famous chestnut-trees mentioned by Miss Keeler are: (a) the Tortworth Chestnut-tree in Gloucestershire, England, which in the reign of King Stephen, 1135 A.D., was famous, and is still standing; the Chestnut of a Hundred Horsemen on Mt. Etna in Sicily, which has a road running through it at the present time.

A southern species of this tree is found in the chinkapin, the nut of which is very much smaller than that of the chestnut.

From "Practical Forestry" (Orange Judd Company) the following is taken: "Nuts [of the American chestnut] smaller, more delicate, shell thinner, and kernel much finer grain and sweeter than the European. The nuts are in great demand in the fall and early winter, but are so delicate that they soon wither up if kept in a dry place, and become moldy if kept in a moist and warm one. . . . The wormy and imperfect nuts will of course decay, and it is a good

plan to keep the nuts for a few weeks after gathering, and then carefully select the good ones before putting away in sand."

HICKORY

Name.—Hickory. *Carya alba*.

Family.—Walnut.

Species.—Shellbark.

Height.—100 feet.

Distribution.—Not abundant in New England; reaches greatest height in Valley of Ohio.

Bark.—Dark gray, separates into strips, often 3 feet or more long, 3 to 8 inches wide, which cling to the trunk, usually by the middle, giving it a rough, shaggy appearance (hence popular name "shagbark" or "shellbark").

Color of wood.—Light brown.

Description of wood.—Tough, close-grained, and extremely elastic.

Shape of leaf.—8 to 14 inches long, compound, of 5 (rarely 7) leaflets.

Use of wood.—Manufacture agricultural implements, carriages, ax-handles; best fuel of American woods.

Color of leaf.—Bright yellowish green.

Color of leaf in autumn.—Bright yellow, falling early.

Time of flowering.—May.

Fruit.—Nuts.

The wood is very tough, strong, and elastic. "Tough as hickory" became a stock phrase among the settlers of this country, and President Jackson was called "Old Hickory" from the popular estimate of his sturdy and unyielding character. It is said that the excellence of the American

ax is due quite as much to its handle of hickory as to the quality of its steel.

The Indian name for this tree means "must be cracked with the teeth."

From "Practical Forestry" the following is gleaned:

"The hickory supplies almost every branch of mechanics with tough timber, and it has no superior as far as fuel is concerned. All of the trees of this family are propagated from the nut. The seedlings may be transplanted when one or two years old."

WALNUT

Name.—Walnut. *Juglans nigra*.

Family.—Walnut.

Species.—Black.

Height.—100 feet.

Trunk diameter.—4 to 6 feet.

Distribution.—Generally distributed; least common in Atlantic States; abundant in the middle Mississippi Valley.

Bark.—Dark brown; slightly tinged with red; deeply divided into broad rounded ridges; broken on the surface into thick scales.

Color of wood.—Dark purplish brown.

Description of wood.—Hard, close-grained, strong; very durable in contact with the soil.

Use of wood.—Furniture, interior finishings, houses, gun-stocks.

Shape of leaf.—Compound, 1 to 2 feet long; unequally pinnate, often equally pinnate.

Color of leaf.—Bright yellow-green; smooth.

Color of leaf in autumn.—Bright yellow.

Time of flowering.—June and July.

Fruit.—Nuts.

Miss Keeler calls this one of the grandest, most massive trees among our flora.

“The objection to the tree is that the leaves are late in coming out in the spring, and fall early in the autumn, so that it often stands naked when its neighbors are apparently in full leaf; moreover, it is the host of many caterpillars.”

The wood is far superior to the European species, but the nut is not as fine.

Suggestion for Tree Study: The following ideas tabulated should be taken up by the teacher in the order given:

Leaf: 1. Venation.

2. Form.

3. Apex.

4. Marginal indentations.

5. Base.

6. How joined to stem; position as alternate, etc.

Flower: 1. Individual flower.

2. In clusters.

Fruit: 1. How grows on stem.

2. Longitudinal section.

Wood: 1. Longitudinal section.

2. Showing sap=wood, bark, heart=wood, and rays.

Root: 1. Tap=root.

- Stem*: 1. How joined to leaf.
2. How joined to branch.
-

LESSON XIII

The child has now reached an age when stories concerning the making of this country will be of interest and of profit as elementary study in history. The text deals with the landing of the Pilgrim Fathers. The reverent spirit that prompted the Pilgrims should be emphasized. The picture shows the Pilgrims, after having landed, in the devout attitude of thankfulness. This picture should be contrasted with the picture of King Arthur's men of the Round Table, where there is more of a martial than of a religious spirit manifested. Consult "The Beginnings of New England," John Fiske (Houghton, Mifflin & Company); "The Puritans in New England," Thomas W. Higginson [Atlantic Essay] (Houghton, Mifflin & Company).

"Holy-Days and Holidays," Edward M. Deems (Funk & Wagnalls Company), con-

tains a department, "Forefathers' Day" (Dec. 21), from which the following are selected:

(a) The editor writes:

"The day itself, December 21, celebrates particularly the landing of the Puritan Pilgrims at Plymouth, Mass., December 21, 1620, and was at first brought into prominence in New England and in the Congregational churches throughout the country. While it is in no state a legal holiday, Forefathers' Day is, nevertheless, loved and revered in many states of the Union, and the event which it commemorates is lauded and memorialized in schools, in public meetings, and at banquets and other functions both private and public."

(b) From "In Pilgrim Youth," Priscilla Leonard, the following is quoted:

"Practically, one goes to Plymouth by train from Boston, and lands in the side-streets of the modern town. But historically one must land at Plymouth Rock. It may be that Mary Chilton did not step first upon it, but it is the beginning of New England history none the less. It may also be that the Pilgrim Fathers themselves did not first land there, but anchored the *Mayflower* for a month instead in the harbor of what is now Provincetown, Cape Cod, while they explored the coast for a suitable place to settle. These are shocks to the lover of tradition, but they do not hinder the fact that Forefathers' Rock is a foundation-stone of American liberty. It is also something of a shock to find that Plymouth Rock is very small and retiring in appearance. It is the only bit of stone apparently for miles around. Far out on the outer face of Manomet, south of the entrance

to the harbor, the 'breaking waves' may occasionally 'dash high' against the rocks, but everywhere else the beach is a low, long, level stretch of yellow-gray sand, and the wide, shallow bay is as pretty and peaceful as possible. Still, tho the coast was not rockbound, it must have been freezingly cold and bleak when the 'band of exiles' moored their bark there; and, indeed, we are told that the first exploring party was nearly frozen on Clark's Island; so that the faith and courage of the Pilgrims was quite enough tried.

"Plymouth Rock, by the way, would be exceedingly difficult to land upon nowadays, because it is quite a distance from the water. It is the real historic rock, however, and the sea must have lapped its sides in those long-ago days, because Elder Thomas Faunce, of Duxbury, in 1741 (being then a man of ninety-five), was brought thither in an armchair, and, sitting upon the rock, made public declaration that when a boy he had been frequently told by the Pilgrims themselves, and by his father who came over in 1623, that a landing was made upon this identical stone. 'The aged elder then took his last look at the spot so endeared to his memory, and, bedewing it with tears, bade it farewell.' That must have been one of the most dramatic scenes the Rock has witnessed. However, part of it has had rather an adventurous career; for in 1774 the top was split off and drawn to the Town Hall by twenty yoke of oxen, to be used as the pedestal of a liberty pole, whose flag bore the patriotic motto, 'Liberty or Death.' Here the Pilgrim relic remained until 1834, when on the Fourth of July it was removed, accompanied by a formal procession, to the front of Pilgrim Hall. Meanwhile, the rest of the Rock was preserved on the original site, surrounded by a stone pavement. In 1859 the present canopy over it was built. It took eight years to complete this,

which is one of the homeliest structures ever designed by mortal man. In 1880 the vagrant top was restored to its place and firmly cemented there, to roam no more. Any one can now go into the little kiosk, and sit on the sacred stone, or step on it, as preferred."

Phonetics: In the phonetic drill, the words should be written phonetically upon the board, as well as sounded from the ordinary spelling of the book. The teacher should not rely entirely upon the words given in these drills alone; she should make further selections from the text. Remember, however, the psychological principle of relief. When the energies are taxed along particular lines, a change of stimulus is sure of good results. The teacher should devise games; should, if it is consistent, introduce action, when the text admits of it, as "playing Pilgrims."

Discussing the word *Pilgrim*, the teacher could, with advantage, tell some simple story from Bunyan's "Pilgrim's Progress."

To the Teacher: 1. It must be remembered always that a thought or wish must be clear in the mind before words can effectively express it. A teacher who has not full faith in God is deficient as a teacher.

2. There is such a thing as a soul finding

God, One who can help in danger, in trouble. Every child has a dim, misty feeling of his divine origin. Happy that one in whom it comes to full consciousness! This will enable him to rise superior to all the storms, trials, dangers in life; to strive for vigorous, free, joyous childhood.

3. Let us have that most superlative of excellencies, the excellence of sincerity in teaching.

LESSON XIV

Here is a poem written by one of those genial souls the reading of whose works—especially his essays—makes one rise so much the better therefrom. All those who have entered into the spirit of Robert Louis Stevenson's "Christmas Sermon" will immediately realize what is meant by that genial spirit. It is the truth generally, impressing one with the idea that the soul and the spirit can be and should be master of us all. There are parts of the "Christmas Sermon" that appear on special panels printed below Stevenson's pic-

ture, that picture which looks out into the world with a penetrating gaze that seems to see the inner workings of things. Here is a man who, like Sidney Lanier, the Southern poet, fought against death, through life, with that patient fortitude and courage that one only has who sees the inner light. Such a life, while harrowing in many particulars, is of noble example to children, and should be brought before them clearly. Should the teacher care for her own satisfaction to look up matters in connection with Stevenson's life, consult the "Letters of Robert Louis Stevenson," edited by Sidney Colvin (Charles Scribner's Sons, two vols.), and also "The Authentic Life of Stevenson," published by the same house. We quote some passages from the "Sermon," which should be interpreted carefully, revealing the proper spirit to the children. It has nothing to do with creeds, and yet should be the basis of all creeds. It embraces that universal touch that makes the Lord's Prayer the universal prayer.

"It is probable that nearly all who think of conduct at all think of it too much; it is certain we all think too much of sin. We are not damned for doing wrong, but

for not doing right; Christ would never hear of negative morality; *thou shalt* was ever his word with which he superseded *thou shalt not*. To make our idea of morality center on forbidden acts is to defile the imagination and to introduce into our judgments of our fellow-men a secret element of gusto. . . .

“To be honest, to be kind—to earn a little and to spend a little less, to make upon the whole a family happier for his presence, to renounce when that shall be necessary and not be embittered, to keep a few friends, but these without capitulation—above all, on the same grim condition, to keep friends with himself—here is a task for all that a man has of fortitude and delicacy. . . .

“People are nowadays so fond of resisting temptations; here is one to be resisted. They are fond of self-denial; here is a propensity that can not be too peremptorily denied. There is an idea abroad among moral people that they should make their neighbors good. One person I have to make good: myself. But my duty to my neighbor is much more nearly expressed by saying that I have to make him happy—if I may. . . .

“To look back upon the past year, and see how little we have striven and to what small purpose: and how often we have been cowardly and hung back, or temerarious and rushed unwisely in; and how every day and all day long we have transgressed the law of kindness—it may seem a paradox, but in the bitterness of these discoveries, a certain consolation resides. Life is not designed to minister to a man's vanity. He goes upon his long business most of the time with a hanging head, and all the time like a blind child. Full of rewards and pleasures as it is—so that to see the day break or the moon rise, or to meet a friend, or to hear the dinner-call when he is hungry, fills him with surprising joys—this world is yet for him no abiding city. Friendships fall

through, health fails, weariness assails him; year after year he must thumb the hardly varying record of his own weakness and folly. It is a friendly process of detachment. When the time comes that he should go, there need be few illusions left about himself. *Here lies one who meant well, tried a little, failed much*—surely that may be his epitaph, of which he need not be ashamed."

The Lesson: The poem should be memorized by the pupils. It is from Stevenson's "Child's Garden of Verses," and should be read over by the teacher herself until the child will be able to repeat certain lines. Should the teacher think it advisable, she may place the verses in phonetic spelling upon the blackboard, and base phonetic drills on the different parts.

Should the teacher find that the pupils enjoy reading little poems like these, consult Stevenson's "Child's Garden of Verses" (Charles Scribner's Sons). The whole volume is fascinating, but from it we select the following titles as being suitable:

- (a) "Bed in Summer."
- (b) "The Whole Duty of Children."

"A child should always say what's true
And speak when he is spoken to,
And behave mannerly at table:
At least as far as he is able,"

- (c) "Windy Nights."
- (d) "Land of Counterpane."
- (e) "The Land of Nod."
- (f) "Foreign Children."
- (g) "The Lamp Lighter."
- (h) "The Moon."
- (i) "The Wind."
- (j) "Winter Time."
- (k) "Picture Books in Winter."

Elsewhere in the Reader will be found another poem of Stevenson's, entitled "My Shadow."

To the Teacher: (1) A lack of organic unity will be a loss of energy; therefore, in all lessons when stories and poems are used, all should have a direct bearing upon the central thought and spirit of the lesson.

(2) Inspiration and enthusiasm are quickened or suppressed in the school-room more than anywhere else.

(3) In reading, children must be made to grasp the entire thought of a sentence or a phrase. The essential thing is to fix the mind on the object to be gained. Do not become wedded to any hobbies, but seek to develop character, courage, hope, and love.

(4) Beware of being overserious—with a tense style of conscience; on the other hand, beware of being flippant. Let there be variety and flexibility of mood. Do not forget that there is comedy in life. We must live on terms of enjoyment with the world.

LESSON XV

The Lesson: Emphasize the difference between that work done for the love of the work, quietly and steadily, and that work done with a blustering noise, to attract or create attention. The teacher should say that the sun steadily working found success, whereas the wind whose boast was so great failed in its purpose. Give this explanation carefully and let the children think out the reason why the sun was successful. It should be the teacher's aim to train the logical faculty as well as to train the other powers of the mind. The logical faculty and the faculty of imagination are not antagonistic. All

of the faculties of the mind are trainable, and should be trained from infancy.

The story as told in the text will interest the child from the imaginative standpoint. The first problem in the reading of a book is whether the interest is awakened. Southey says: "Would you know whether the tendency of a book is good or evil, examine in what state of mind you lay it down. If it induces you to suspect that what you have been accustomed to call bad be innocent, and that may be harmless which you have heretofore thought to have dangers, if so, throw the book into the fire, whatever name it may bear upon the title=page."

A reading=book for children should bring good cheer, and should have stories that avoid the painful; and yet the strenuous life should not be ignored. The appeal should be to the optimistic side of life. The book should have another purpose than to create good cheer—and that is to start a better idea of life, which should fortify children against temptations, not by keeping them out of temptation, but by making them strong in temptation. Let the stories be sunny in nature. Show the sunny side

of life, yet be sure that this is the accurate side of life. The teacher should keep the children close to life, the stories should be sincere, honest, and based on life as it is and as it ought to be.

Stories: The lesson might be divided into two distinct parts: (a) dealing with the sun; (b) the winds. Nowhere in literature is there greater material for imaginative legends dealing with these two subjects than in Greek and Norse mythology. Mrs. L. L. Wilson calls attention in her "Nature Study in Elementary Schools" (The Macmillan Company) to the following titles:

- (1) "Æolus, Story of."
- (2) "Thor and His Hammer."
- (3) "Story of Iris."
- (4) "Æneas and the Winds."
- (5) "The Four Winds," from "Hiawatha."
- (6) "Wanderings of Atola."
- (7) "Apollo and the Python."
- (8) "Apollo and Clytie."
- (9) "Phaethon."
- (10) "Iris."

To quote Mrs. Wilson: "The myths named above give the story of the sun-god,

the giver of light and heat: light triumphant over darkness is typified in Apollo's struggle with the Python. The desire of plant-life for the sun is told in the story of Clytie. The blooming vegetation of spring withering under the heat of summer is the meaning of the story of Hyacinthus; the destructive drought is a consequence of Phaethon's carelessness in the driving of his father's chariot; and the storm of thunder, lightning, and rain is the thunderbolt of Jupiter which destroys the daring rider. Finally comes the beautiful myth of Iris, the goddess of the rainbow." [*Vid.* page 63.]

These stories, told in a simple way for children, would give them a foundation which in after-life, when they come to consider literary allusions, would be serviceable. Children remember stories as stories, and it happens that almost every Greek or Norse name mentioned in literature has a whole coterie of attendant stories which are purely fairy-tale in character, and should be so emphasized to the children, even tho an objection might be raised to the word *god* used in connection with these tales. Should the teacher desire, she could change the words *god* and

gods to such phrases as *a great person* and *great people*, and then treat the stories simply as stories.

Let the teacher tell about Ulysses and his wanderings; how, when he arrived at the island of Æolus, where ruled King Æolus, to whom Jupiter had given the winds to do with them as he would, Ulysses found good treatment and rich entertainment. When Ulysses was about to go, King Æolus gave to him a leathern bag tied with silver strings and said to him:

“Herein I have tied those winds which would harm thee on the journey; only fair winds will speed you on your way. But look not therein lest the bad winds all come out.”

Before the wind Ulysses went, and for nine days he himself watched at the helm. But soon sleep overcame him, and then the ship's crew, coming together, talked of this mysterious bag and decided that it contained untold wealth, of which they would like to have a share. So they untied the silver strings, and out there rushed all of the bad winds of heaven, and the ship was driven backward to the island of Æolus.

Here the King, enraged at what he saw,

refused to help Ulysses more, and so the wanderer had to go over that long distance again without the aid of favoring winds and with the help only of the oars.

Hiawatha and the Four Winds:

In Longfellow's "Hiawatha," Part II, is told of the four winds; how after Mudjekeewis had killed the Great Bear of the Mountains, he returned and was chosen father of the Winds of Heaven, keeping for himself the West Wind and giving the other winds to his children.

Pronunciation Drill: Regarding phonetic spelling, remember that throughout this Reader it is only used for *pronunciation purposes*; the child, however, should be made so familiar with the symbols representing the different sounds of the Scientific Alphabet that if a radical change should ever be made in our present spelling, it will not be too difficult a one, and the way will be prepared for whatever modifications are made. The Scientific Alphabet should be urged upon the ground of simplicity. It contains a minimum of diacritical marks and a minimum of odd consonantal combinations. The phonetic drill consists of examples of "E" sounds

in the first line and miscellaneous sounds in the second line. If the teacher finds the children interested in the working-out of phonetic sentences, take easy sentences from the text and treat them in a way similar to that suggested previously. In all phonetic drills, wherever the teacher finds the child having difficulty in the pronunciation of a word, that word should be carefully drilled upon and put in phonetic spelling upon the board.

LESSON XVI

The birds to be studied in this lesson have been grouped as common about our homes—the “home birds.” Remember that in the study of birds some of the most important points to be taken up are:

(1) Color; (2) size; (3) wings; (4) markings on wing, tail, breast, back, etc.; (5) movement; (6) feet; (7) song; (8) nest; (9) eggs.

Picture: The pictures for the bird lessons have been carefully drawn by the best artists, and have been examined in

detail by Mr. Frank M. Chapman, of the Museum of Natural History (New York), so that their accuracy is assured. Ask questions based upon the details of the picture; for example:

1. Which is the largest of the four birds in the picture?

2. Which bird do you consider the prettiest?

3. From what you have heard about birds, which one would you rather own?

4. Is the robin the same as the robin red-breast of the "Babes in the Wood" story?

The teacher must bear in mind that the selection of the four birds under consideration does not necessarily mean that these are the only birds found among the twenty studied in the Second Reader that are common about our homes. The birds studied in Lesson V could in all probability be studied from the same standpoint; in the six bird lessons, the object is to show that it is possible for the teacher to study from six entirely different points of view should she so desire.

As before, consult the following books, from which much of the material found in these notes is taken:

(a) "Bird Neighbors," Neltje Blanchan (Doubleday & McClure Company).

(b) "Bird Life," Frank M. Chapman (D. Appleton & Company).

(c) "Birds of Village and Field," Florence A. Merriam (Houghton, Mifflin & Company).

Chipping Sparrow :

Family.—Finch. *Spizella socialis*.

Range.—North America, west to Rockies.

Migration.—*Arrival*: Summer resident. *Departure*: October. Sometimes resident.

Size.—5-5.5 inches; 1 inch shorter than English sparrow.

Nest.—*Location*: Vine, bush, or tree, from 1 to 25 feet from the ground. *Material*: Grass, roots; sometimes lined with hair.

Eggs.—*Number*: 3 to 5. *Color*: Light blue tinged with green, purple, and brown markings.

The family to which the sparrow belongs is a large one, and in the Second Reader we have selected not the English sparrow, which is familiar to every one, but the chipping sparrow, commonly known as the "chippy." One can hardly realize that not many years ago the English sparrow was unknown to America. It was only after a few pairs were brought over from England and set free in Prospect Park, Brooklyn, that these most troublesome of bird neighbors began to multiply, until now so many have become citizens of the United States

that the birds of America are finding it hard to maintain their own. The chipping sparrow is common in North America from Newfoundland to the Gulf of Mexico and westward to the Rockies, and winters in the Gulf States and Mexico.

Neltje Blanchan, in her "Bird Neighbors," calls the chippies the humblest and most unassuming of our bird neighbors. The male, under the eye and on the back of the neck and underneath, is ash gray, with a gray stripe over the eye and a blackish one apparently through it. His crown is reddish brown; the wings and tail are a distinct brown; the bill is black. The female lacks the chestnut color on her crown, which is striped with black, and below the wings the front is black; the bill is brownish.

Unlike most sparrows, Neltje Blanchan says, the little chippy frequents high trees, where its nest is built quite as often as in the low bushes in the garden.

Florence A. Merriam, in "Birds of Village and Field," writes the following of the chippy:

"Since the chippy is the first of the sparrows to be studied, it will be well to look very closely to see what are his family traits. He has the cone-shaped, seed-

cracking finch bill—the type we saw approached by those of the cowbird and bobolink; but, like most sparrows, is not exclusively granivorous. As a seed-eater he destroys the foxtail and crab-grass that disfigure our lawns, and he helps too to free our premises from pigweed, chickweed, and knotweed; while as an insect-eater he does us a good turn by eating cabbage-worms, tent-caterpillars, and gipsy-moth caterpillars. . . .”

Bluebird :

Family.—Thrush. *Sialia sialis*.

Range.—North America, Nova Scotia to the Gulf of Mexico.

Migration.—*Arrival*: March. Summer resident. *Departure*: November.

Size.—7 inches; 1 inch longer than English sparrow.

Food.—Grasshoppers, crickets, caterpillars, wild fruit.

Nest.—*Location*: Hole in tree, bird-boxes. *Material*: Grass.

Eggs.—*Number*: 3 to 6. *Color*: Pale blue, sometimes white.

Male.—Wings, back, and tail bright blue; rusty in autumn. Throat, breast, and sides cinnamon-brown; under side of tail white. *Female*.—Dull-blue feathers with a paler breast than the male. [*Vid.* Blanchan.]

It is a peculiar fact that the young of the bluebird are almost black in color, and it is only after several weeks that the first streaks of blue appear.

Mr. Dugmore, in his “Bird Homes,” has the following to say of the bluebird:

“He is my favorite bird, and while I am writing of him, a pet one, but three months old, is sitting on my paper, seeming to wonder what I am doing, and why I do not play with him. He nips my pencil, but I pay no attention to him; then he tries to creep up my sleeve, and still I pay no attention; so, disgusted, he flies off to search for . . . insects. After a time I . . . call; back he comes like a flash, and, hovering more like a large moth than a bird, he perches on my fingers, singing at the same time a soft little song that is his method of speech. Having a bird that is so thoroughly companionable makes me regard all bluebirds with the greatest possible affection.”

Mr. Chapman says in his “Bird Life”:

“The bluebird is the first of our smaller birds to begin housekeeping; . . . no bird’s song is more associated with the return of spring than the bluebird’s; nor is there a bird’s note more expressive of the passing season than the bluebird’s autumn call, ‘Far away, far away.’”

In Florence A. Merriam’s “Birds of Village and Field” the following interesting incident is quoted:

“Altho the bluebird did not come over in the *Mayflower*, it is said that when the Pilgrim Fathers came to New England this bird was one of the first whose gentle warblings attracted their notice, and from its resemblance to the beloved robin redbreast of their native land they called it the blue robin. . . .

“One of the most effective ways to attract the bluebird . . . is by planting wild berry-bearing bushes, particularly in the West, where such bushes do not grow

naturally. For . . . three-quarters of the bluebird's food consists of grasshoppers, crickets, caterpillars, and similar insects, and it is 'exceedingly useful to the horticulturist and farmer, destroying myriads of larvæ and insects which would otherwise increase and multiply.' . . ."

The bluebird, the same author writes, "extends his dietary to wild fruits, and by means of them he may be brought about our houses. A variety of bushes can be planted, for he has been found to eat bird=cherry, choke=cherry, dogwood, . . . huckleberry, greenbrier, Virginia creeper, strawberry=bush, juniper=berry, bitter-sweet, pokeberry, false spikenard, partridgeberry, holly, rose=haws, sumac, and wild sarsaparilla."

American Robin :

Family.—Thrush. *Merula migratoria*.

Range.—North America, from Mexico to arctic regions.

Migration.—*Arrival*: March. *Departure*: October, November. Often resident.

Size.—10 inches.

Food.—Wild fruit, dogwood, wild grapes; the harm done in strawberry=patches overbalanced by quantity of worms and insects devoured.

Nest.—*Location*: Branch of tree 4 to 35 feet from ground. *Material*: Leaves, roots, grasses, and mud; inner lining mud and fine grass.

Eggs.—*Number*: 3 to 5. *Color*: Greenish blue.

Male.—Dull brownish, olive=green above; head black; tail brownish black, with feathers white at inner tips; wings dark brownish; throat streaked with black and white; breast rusty red; white below tail.

Female.—Dull breast; resembling male in autumn.

Mr. Parkhurst, in his "Bird Calendar," says he knows of "no other bird that is able to give so many shades of meaning to a single note, running over the entire gamut of its possible feelings, . . . love, contentment, anxiety, exultation, rage, . . . the robin seems more nearly human than any of its kind." And Neltje Blanchan writes: "Prof. Tredwell, who experimented upon some young robins kept in captivity, learned that they ate sixty=eight worms daily — 'that is, each bird ate 40 per cent. more than its own weight in twelve hours! The length of these worms, if laid end to end, would be about fourteen feet.'"

Redwinged Blackbird:

Family.—Blackbird. *Agelaius phoeniceus*.

Range.—From Mexico to 57 degrees N. lat.

Migration.—*Arrival*: March. Summer resident. *Departure*: October.

Size.—Variable, 7.51-9.80 inches; usually 1 inch smaller than robin.

Food.—Largely insects and noxious weeds of all kinds.

Nest.—*Location*: In grass, cattails, or reeds; often in bushes 4 and 5 feet from the ground. *Material*: Weeds and grasses lined with hair.

Eggs.—*Number*: 3 to 5. *Color*: Pale greenish blue or pearly white, blotches of dark purplish brown.

The male is coal-black, except for scarlet shoulders edged with yellow. The female is speckled with brown, rusty black, whitish, and orange, and the upper wing-coverts are rusty black tipped with white and rufous. The blackbird's song, Neltje Blanchan claims, contains notes liquid in quality, suggesting the sweet, moist, cool retreats where the blackbird nests. She likewise claims that tho farmers may complain that the blackbird is a nuisance, still an examination of his food will show that seven-eighths of his bill of fare is made up of weed-seeds or of insects injurious to agriculture.

This familiar bird, with his distribution throughout the United States, is of untold value from an economic standpoint. The teacher should emphasize that even tho a bird might now and then destroy something that is of value to man, the service done in other directions quite counterbal-

ances this slight mischief on his part. The redwinged blackbird is among our most useful as well as familiar birds. He feasts upon insect pests, including grubworms, cutworms, grasshoppers, beet-caterpillars. [See "Birds of Village and Field," page 96.] He turns his attention to the weed-seeds, destroying such specimens as ragweed and foxtail; in fact, Miss Florence A. Merriam states: "Statistics show that 57 per cent. of its total vegetable food is composed of noxious weeds as against 13 per cent. of grain." In the South, here and there among the rice-fields, the blackbird eats the degenerate grain and relieves the farmer of considerable work.

Pronunciation Drill: The teacher should not pay particular attention to any of the diphthongal sounds found in the lessons previous to those in which the diphthongs are taken up as a definite study. It rests with the teacher who reads the text and has it read by the pupils themselves to make a list of words the phonetic spellings of which are to be found in the special vocabulary in the Appendix. These various drills are given with the special intention of reviewing and empha-

sizing what has been said in the Standard First Reader concerning a phonetic method. Only by constant repetition may a phonetic system and the symbols that make that system be remembered. Once indelibly stamped upon the memory of a child, there is at his command an unvarying symbol that represents an unvarying sound; by this means an accurate standard of pronunciation may be procured.

To the Teacher :

(1) Bring the child to a closer observation of nature and to a better understanding of nature. There are teachers who teach without a grain of inspiration, without a grain of enthusiasm for their profession, or for the perfection of manhood and womanhood.

(2) Facts are the most important things in the world. A fact is stubborn, omnipotent, irresistible. We may shut our eyes to it, explode dynamite under it, yet it is unchanged.

(3) Never forget the power of the imaginative faculty of children. Appeal to it, seek to cultivate it by exercise within the limits of truth and reason. Teach children to create *pictures in their minds*, remembering always that a picture is more powerful than argument. Cultivate the art of making children see what you want them to see.

(4) "Learn by doing," says Froebel.

(5) It is well to know what to forget.

(6) Herbert Spencer says : "Children should be told as little as possible and encouraged to discover as much as possible."

LESSON XVII .

This is to be read and memorized by the pupils. Words in it are to be studied phonetically, and phonetic sentences should be based upon lines in the poem.

LESSON XVIII

The Development of Printing :

Nowhere is the contrast between the medieval spirit and the modern spirit better brought out than in the way in which books were made then and are printed now. The teacher should get the child interested in the way the monks of the Middle Ages used to illuminate manuscripts. If it had not been for these monks most of the classic literature of Greek and Roman civilization would have been lost. Tell how with in-

finite patience and exactitude the monk with various colors used to decorate the pages upon which he wrote. From "Introduction to the History of Western Europe," by James Harvey Robinson [Part I, The Middle Ages] (Ginn & Company), we quote the following:

"Just as the books had all to be laboriously written out by hand, so each picture was painted on the parchment page with tiny brushes and usually in brilliant colors with a generous use of gold. And as the monks wrote out the books, so it was, in general, the monks who painted the pictures. The books that they adorned were chiefly those used in the church services; especially the breviary, the psalter, and the book of hours. Naturally, these pictures usually dealt with religious subjects and illustrated the lives of the saints or the events of Biblical history. Virtue was encouraged by representations of the joys of heaven and also stimulated by spirited portrayals of the devil and his fiends, and of the sufferings of the lost" (page 261).

Does it not seem strange that at one time the printing of books was such a problem and now it is such an ordinary thing for presses to turn out thousands and thousands of books a day?

From the "International Cyclopedia" (Dodd, Mead & Company) the following is condensed:

The art of printing is of comparatively

modern origin, only four hundred years having elapsed since the first book was issued from the press. The Chinese are the only existing people who still pursue the rude mode of printing by stamping paper with blocks of wood.

The credit of discovering movable type, thereby avoiding blocks of type, is disputed between a Dutchman, Laurence Coster, and Gutenberg. Up to the seventeenth century, a screw=press printing under pressure was used (consult cyclopedias for the development of the modern press).

The modern press now turns out rapidly the newspapers that are put on our breakfast=table in the morning. The teacher will find it much better to let a child see the printing=press at work, not only printing the papers, but folding and cutting them so that when dropped from the press they are ready for delivery.

Later on, a lesson based on Benjamin Franklin and his work as a printer will be given. His name is mentioned in the text, but it would be well simply to suggest who he was rather than to go into very much detail at present.

If a toy printing=press could be procured

it would be interesting to let the children set up the type and "play printing." In the game "word making and taking" let the children separate the different letters, putting all the A's together, all the B's together, etc., until all the letters of the alphabet are separated; then let them spell words by taking the letters from the different piles in the same way that the printer takes the types from the different parts of the typesetting-case.

Pronunciation Drill: Use the words in sentences, and take sentences from the text and put in phonetic spelling.

To the Teacher: (1) You can not develop the individuality of a child unless you grant freedom. Inspire self-active growth. Slavery must be banished from the schoolroom. Slavery is to make one do from outside motive; freedom is to do from inside.

(2) Distinguish clearly between *thinking* and *memory*; wise discriminating efforts should be made to develop each. We must train the sense of perception with exactness.

LESSON XIX

The Lesson: This should be treated as a story, and then talked about from its ethical motive. The teacher should make the pupils familiar with some of the proverbial expressions that are common in English. It must be remembered that at this particular stage the pupils are obtaining the foundations of culture, and the allusions found in the literature to be studied in future grades are often stumbling-blocks in the way of clear understanding. Do not make the child a mere creature of routine, otherwise you will stupefy him and stunt his mental growth.

When the child understands the thorough meaning of the proverb which ends the lesson, "Labor conquers all things," make him familiar with other proverbs.

Proverbs :

- (1) All that glisters is not gold.
- (2) Be sure you are right, then go ahead.
- (3) Deeds not words.

- (4) Forgiveness is better than revenge.
- (5) It is better to wear out than to rust out.
- (6) Strike while the iron is hot.

Pronunciation Drill: Attention should be called to the "ng" sound in the word *conquers*. The first line of the phonetic drill contains examples of the "O" sounds.

To the Teacher: The following paragraphs by Friedrich Froebel are gleaned from selections to be found in Warner's "Library of the World's Best Literature" (Vol. X):

"I see in every child the possibility of a perfect man."

"The plays of childhood are the heart-leaves of the whole future life."

"Childish unconsciousness is rest in God."

"From each object of nature and of life, there goes a path toward God."

"Childhood is the most important stage of the total development of man and of humanity."

"Isolation and exclusion destroy life; union and participation create life."

"The tree-germ bears within itself the nature of the whole tree; the human being bears in himself the nature of all humanity; and is not therefore humanity born anew in each child?"

"In the children lies the seed-corn of the future."

"In all things works one creative life, because the life of all things proceeds from one God."

"Let us live with our children: so shall their lives

bring peace and joy to us; so shall we begin to be and to become wise."

"What boys and girls play in earliest childhood will become by and by a beautiful reality of serious life; for they expand into stronger and lovelier youthfulness by seeking on every side appropriate objects to verify the thoughts of their inmost souls."

"This earliest age is the most important one for education, because the beginning decides the manner of progress and the end. If national order is to be recognized in later years as a benefit, childhood must first be accustomed to law and order, and therein find the means of freedom. Lawlessness and caprice must rule in no period of life, not even in that of the nursling."

"The kindergarten is the free republic of childhood."

"Man must be able to fail, in order to be good and virtuous; and he must be able to become a slave, in order to be truly free."

"My teachers are the children themselves, with all their purity, their innocence, their unconsciousness, and their irresistible claims; and I follow them like a faithful, trustful scholar."

"I wish to cultivate men who stand rooted in nature, with their feet in God's earth, whose heads reach toward and look into the heavens; whose hearts unite the richly formed life of earth and nature, with the purity and peace of heaven—God's earth and God's heaven."

LESSON XX

The Lesson : In the text there is scope for varied treatment. There are no less than fourteen objects mentioned for which material could be furnished. These topics are as follows:

(1) South wind; (2) vine; (3) oak-tree; (4) daisy; (5) sun and flowers; (6) the violet; (7) bees; (8) summer and bird music; (9) north wind; (10) oak-leaves falling; (11) snow; (12) storm king; (13) brook; (14) bluebird.

The Wind : Consult the suggestions given in the Teachers' Manual for the First Reader, Lesson LII; the teacher should drill the children upon the various directions from which the wind blows.

In her "Nature Study in Elementary Schools" (The Macmillan Company) Mrs. Wilson writes as follows:

"The children should be taken out of doors to notice the direction from which the wind comes, after they have been properly prepared for the work by discussing

various ways by which this may be determined, such as holding up the handkerchief, pieces of paper, watching the leaves, clouds, smoke, flags, etc. It must be made perfectly clear that all of these things will be blown in a direction exactly opposed to that from which the wind comes. If, for example, the smoke is going to the south-east the wind is from the northwest" (page 15).

The readiest of all ways is to wet a finger in the mouth and hold it up. The side *to-ward* the wind, even a very slight wind, will at once feel cold, by evaporation.

Vine: The text also mentions the vine, which should be discussed in general, showing the different parts. Characteristic of the vine are the tendrils, which help the plant to climb. From Gray's "Manual of Botany" (American Book Company, page 112) we quote the following:

"[The vine family consists of] shrubs with watery juice, usually *climbing* by tendrils, with small regular flowers."

Among the fruits, the grape-vine with its purple grapes could be mentioned; among the flowers, the honeysuckle; among the ordinary plants, the ivy.

Show the pupils by drawings of the leaves the difference between the ordinary harmless ivy or Virginia creeper and the poison-ivy. Note especially that poison-

ivy is 3-leaved while true ivy is 5-leaved. A story connected with the vine, called "The Oak=Tree and the Ivy," will be found in another part of the Reader, page 104.

Oak=Tree: The teacher is referred to the lesson upon the oak=tree in this Reader, page 132.

Daisy: The daisy has been studied in a previous lesson, page 72. We quote from "Folk=Lore of Plants," by T. F. T. Dyer (D. Appleton & Company), the following stories in connection with the daisy:

"A popular French one [superstition] which many of our young people also practise is for lovers to test the sincerity of their affections by taking a daisy and plucking its leaflets off one by one, saying: 'Does he love me a little? Much? Passionately? Not at all?' . . . The blossoming of plants at certain times is said to be an indication of the coming weather, and so when the bramble blooms early in June an early harvest may be expected; and in the northern countries the peasant judges of the advance of the year by the appearance of the daisy, affirming that 'spring has not arrived till you can set your foot on twelve daisies.' . . .

"In Thuringia on the extraction of a tooth the person must eat three daisies to be henceforth free from toothache."

Sun and Flowers: Tell of the influence of the sun on plant life; how, for example, trees bend in a certain direction

along a river bank or on the slope of a mountain where they may be subjected to the greatest amount of sunlight. A strong prevailing wind may reverse this, as on seashore. The child may in all probability ask where the green of plants comes from. A simple lesson on the action of the sun in producing chlorophyl will not be amiss.

The Violet: It blossoms everywhere, in woods, waysides, meadows, marshes, and shady dells.

“The heart-shaped, saw-edged leaves, folded toward the center when newly put forth, and the five-petaled, bluish-purple, golden-hearted blossom, are too familiar for more detailed description. From the three-cornered stars of the elastic capsules the seeds are scattered abroad. [*Vid.* “Nature’s Garden,” page 29.]

“Beards on the spurred lower petal and the two side petals give the bees a foothold when they turn head downward, as some must, to suck nectar. This attitude enables them to receive the pollen dusted on their abdomens, when they jar the flower, at a point nearest their pollen-collecting hairs.”

Butterflies and bumblebees are the pollen-eating interlopers.

From Neltje Blanchan’s “Nature’s Garden,” the following is quoted:

“(1) Why is the flower situated on a long stalk which is upright, but curved downwards at the free end? In order that it may hang down, which, firstly, prevents rain from

obtaining access to the nectar; and, secondly, places the stamens in such a position that the pollen falls into the open space between the pistil and the free ends of the stamens. If the flower were upright, the pollen would fall into the space between the base of the stamen and the base of the pistil, and would not come in contact with the bee.

“(2) Why does the pollen differ from that of most other insect-fertilized flowers? In most of such flowers the insects themselves remove the pollen from the anthers, and it is therefore important that the pollen should not easily be detached and carried away by the wind. In the present case, on the contrary, it is desirable that it should be looser and drier, so that it may easily fall into the space between the stamens and the pistil. If it remained attached to the anther, it would not be touched by the bee, and the flower would remain unfertilized.

“(3) Why is the base of the style so thin? In order that the bee may be more easily able to bend the style.

“(4) Why is the base of the style bent? For the same reason. . . .

“(5) Why does the membranous termination of the upper filament overlap the corresponding portions of the two middle stamens? Because this enables the bee to move the pistil, and thereby to set free the pollen more easily than would be the case under the reverse arrangement.”

Bees: For material upon this subject the teacher is referred as a review to the Teachers' Manual for the First Reader (page 211).

Bluebird: The teacher is again referred to Lesson XVI, page 40, for material on the bluebird.

Text: The lesson is based on a story by Eugene Field, in "A Little Book of Profitable Tales" (Charles Scribner's Sons). Awaken the imagination of the pupils and talk about the details of the picture. Obtain the book itself, if possible.

Pronunciation Drill: While no pronunciation drill or phonetic drill is prepared in connection with this lesson, the teacher must not forget that throughout the reading of the text attention should be paid to clear enunciation. Whatever words are seemingly difficult to pronounce should be written upon the board and drilled upon. The teacher should select from the text such words as *fierceness*, *sweetly*, *awakening*, for careful drill. Phonetic sentences should be taken from the text and sounded as heretofore suggested.

To the Teacher:

- (1) Nature work is an educational movement that would have delighted the heart of Horace Mann.
- (2) Seek is the law of development, of progress.
- (3) Above all, study those things that nourish character.
- (4) Encourage every family to have a children's garden.

LESSON XXI

The Lesson: The author of "Alice in Wonderland," speaking of biography and autobiography, said that "autobiography is what biography ought to be."

A knowledge of Benjamin Franklin is not complete unless his autobiography has been read. Franklin had so many pursuits and so many tastes that to the American girl or boy his entire life will act as a great force.

The autobiography is a small book. If the teacher is not familiar with it, the opportunity now presents itself to read it through. There is much material that the teacher would find invaluable for school-room use; almost at random could passages be selected that would form the basis for numerous talks.

The lesson is based on simple sentences taken from the "Autobiography." The entire book is direct and straightforward. Read part of the "Autobiography" your-

self and let Franklin speak for himself. The following topics for stories are suggested in paragraphs culled here and there from the little book:

I. *Entry into Philadelphia.*

“I have been the more particular in this description of my journey, and shall be so of my first entry into that city, that you may in your mind compare such unlikely beginnings with the figure I have since made there. I was in my working dress, my best clothes coming round by sea. I was dirty from my being so long in the boat. My pockets were stuffed out with shirts and stockings, and I knew no one, nor where to look for lodging. Fatigued with walking, rowing, and the want of sleep, I was very hungry; and my whole stock of cash consisted in a single dollar, and about a shilling in copper coin, which I gave to the boatmen for my passage. At first they refused it, on account of my having rowed; but I insisted on their taking it. Man is sometimes more generous when he has little money than when he has plenty, perhaps to prevent his being thought to have but little.

“I walked toward the top of the street, gazing about till near Market Street, where I met a boy with bread. I had often made a meal of dry bread, and, inquiring where he had bought it, I went immediately to the baker’s he directed me to. I asked for biscuits, meaning such as we had at Boston; that sort, it seems, was not made in Philadelphia. I then asked for a threepenny loaf, and was told they had none. Not knowing the different prices, nor the names of the different sorts of bread, I told him to give me threepenny worth of any sort. He gave me, accordingly, three great puffy rolls. I was surprised at the quantity, but took it, and, having

no room in my pockets, walked off with a roll under each arm, and eating the other. Thus I went up Market Street as far as Fourth Street, passing by the door of Mr. Read, my future wife's father; when she, standing at the door, saw me, and thought I made, as I certainly did, a most awkward, ridiculous appearance. Then I turned and went down Chestnut Street and part of Walnut Street, eating my roll all the way, and, coming round, found myself again at Market Street wharf, near the boat I came in, to which I went for a draft of the river water; and, being filled with one of my rolls, gave the other two to a woman and her child that came down the river in the boat with us, and were waiting to go farther."

II. In simple form let the teacher talk to the children about Franklin's idea of virtue.

III. *Franklin's methods* emphasize the force of Pope's proverbial expression that "order is heaven's first law":

"The precept of *Order* requiring that *every part of my business should have its allotted time*, one page in my little book contained the following scheme of employment for the twenty-four hours of a natural day:

SCHEME.

	HOURS.	
MORNING.	{ (5) }	Rise, wash, and address <i>Pow- erful Goodness!</i> Contrive day's business and take the resolution of the day; prosecute the pres- ent study, and breakfast.
The question :	{ (6) }	
What good shall	{ (7) }	
I do this day ?	{ (8) (9) (10) (11) }	Work.

NOON.	{ (12)	{ Read, or look over my ac-
	{ (1)	{ counts, and dine.
AFTERNOON.	{ (2)	} Work.
	{ (3)	
	{ (4)	
	{ (5)	
EVENING.	{ (6)	} Put things in their places. Supper. Music or diversion, or conversation. Examination of the day.
The question :	{ (7)	
What good have	{ (8)	
I done to-day ?	{ (9)	
	{ (10)	
	{ (11)	} Sleep.
NIGHT.	{ (12)	
	{ (1)	
	{ (2)	
	{ (3)	
	{ (4)	

"I entered upon the execution of this plan for self-examination, and continued it with occasional intermissions for some time. I was surprised to find myself so much fuller of faults than I had imagined; but I had the satisfaction of seeing them diminish. . . ."

IV. *Franklin's interests in education, etc.*

(a) University at Philadelphia; (b) civic activity; (c) politics; (d) founding hospital; (e) introducing street-cleaning.

V. *Franklin's part in our Revolutionary War, etc.*

John Bigelow, in his introduction to the selections from Franklin's works, in Charles Dudley Warner's "Library of the World's Best Literature," has these points to emphasize:

(a) As a printer, as a journalist, as a diplomatist, as a statesman, as a philosopher, he was easily first among his contemporaries.

(b) "The organization of a police and later of the militia for Philadelphia; of companies for extinguishing fires; making the sweeping and paving of the streets a municipal function; the formation of the first public library for Philadelphia and the establishment of an academy which has matured into the now famous University of Pennsylvania, were among the conspicuous reforms which he planted and watered in the columns of the *Philadelphia Gazette*."

(c) "In surveying the life of Dr. Franklin as a whole, the thing that most impresses one is his constant study and singleness of purpose to promote the welfare of human society. It was his daily theme as a journalist and his yearly theme as an almanac-maker. It is that which first occurs to us when we recall his career as a member of the Colonial Assembly, as an agent of the provinces in England, as a diplomatist in France, and as a member of the conventions which crowned the consistent labors of his long life."

(d) "Tho holding office for more than half of his life, the office always sought Franklin, not Franklin the office."

(e) "It is also quite remarkable that tho Franklin's life was a continuous warfare, he had no personal enemies."

Concerning the signing of the Declaration of Independence, Mr. Bigelow gives the following anecdote:

"When the members were about to sign the Declaration, Mr. Hancock is reported to have said: 'We must be unanimous; there must be no pulling different ways; we must all hang together.' 'Yes,' replied Franklin, 'we must indeed all hang together, or most assuredly we shall all hang separately.'"

Pronunciation Drill: In the pronunciation drill eight words are given in which various sounds are introduced with the purpose of having all of them emphasized simply as sounds. In drilling upon the short sound of "A," such words as *Franklin*, *chandler*, and *grammar* could be written upon the blackboard; so with other words in the text, definite drill may be given upon whatever particular sounds the teacher wishes to emphasize. The diphthongal sounds should not be emphasized until the time comes for direct study of them. The teacher should call attention to the **ng** [ŋ] sound in the word *Franklin*.

To the Teacher:

(1) Strive to get the idea into the minds of little children that life does not consist in eating and drinking, or in what one wears, or in riches, or in the health of the body, but in doing good, in making, as Browning said, "the absolute best of that which God has given us." This is nowhere better emphasized than in the life of Benjamin Franklin.

(2) It is not the gloved hand that is needed always; it is above all the iron hand in the glove.

(3) Expect a child to come into a better life slowly, not by once telling, but by spiritual, moral, and mental growth. It is not simply knowledge that makes the child strong, but growth and character.

LESSON XXII

“Poor Richard’s Almanac”: From Franklin’s “Poor Richard’s Almanac,” a certain number of quotations have been made for the first part of this lesson. The sentences are to be used in the same way that the mottoes were used in the First Reader. Each sentence is to be taken up separately and explained to the children. Each sentence also should form the basis of a story either to be made up by the teacher or to be based upon some story she knows; for example, “God helps those who help themselves” is very well exemplified in Franklin’s own life, where through his own exertions he rose to a high position in American history. The motto “One to-day is worth two to-morrows” is put in another form when it is said that “A bird in the hand is worth two in the bush,” or “Put not that off till to-morrow which ought to be done to-day.” As for pronunciation drill the following words might be

put upon the board with their phonetic spellings: *almanac, business, faithful, servant, and Richard*. This should be used after the teacher has drilled thoroughly upon the pronunciation drill and phonetic sentence given on the lesson page.

LESSONS XXIII, XXV, XXVI

The Lessons: Lessons XXIII, XXV, and XXVI, dealing with Tennyson and "The Idylls of the King," should be treated as a whole. The phonetics to be found in these lessons consist of the following:

Phonetics: (1) *Lesson XXIII*. Six words for pronunciation drill. Judicious selections of other words should be made by the teacher for additional drills. The phonetic sentence should be read by the pupils and afterward placed by the teacher upon the board in the ordinary spelling. The sentence should be used in the same way as was the phonetic text in the second part of the First Reader.

(2) *Lesson XXV.* A pronunciation drill. The teacher should examine the text carefully and note where the difficulty, if any, comes in pronunciation or enunciation.

(3) *Lesson XXVI.* No phonetics. The teacher should apply some method suggested in a previous drill.

References to Malory and the history of the legends of Arthur are given. Sidney Lanier published a book called "The Boys' King Arthur," which is a simplified form of Malory. Miss Nimmo Greene has published some stories in prose interspersed with sympathetic selections from Tennyson's poems. In the current volume of "St. Nicholas" Magazine, Howard Pyle has told for children the story of King Arthur and his knights.

To the Teacher :

(1) Ella Wheeler Wilcox writes:

They can not and they shall not last —
The broader impulse of the day
Will gain, and grow, and sweep away
The rank injustice of the past.

The purport of the hour is fast,
The world wants justice; it demands
United hearts, united hands —
The day of charity is past.

(2) Teach respect for law and respect toward both rich and poor. But beyond this teach respect for something higher than law, respect for conscience, respect for one's good reputation, and willingness to suffer patiently for that which is right.

(3) Let every child be made to feel that he who does wrong punishes himself. Learn that the mind grows from within.

Tennyson: One who reads Tennyson is struck with that great beauty of expression of which he was a master. He had a great sympathy with all things human, which made him distinctly a poet of his time, with that delicate sense of the relations existing between all things that makes his poetry so full of suggestion. Nowhere in the Victorian range of literature do we find a poet so closely in touch with his times as Tennyson. From the "Memoir" by his son (The Macmillan Company) we quote certain passages, and strongly advise the teacher, even tho all the material may not be used to advantage with pupils in this grade, to read the two volumes for the culture that may be obtained from them. The book brings one very close to the poet.

On the 6th of August, 1809, Tennyson was born in his father's rectory (at Som-

ersby). During his boyhood, his imagination received ample impetus.

“Like other children, the Tennysons played imaginative games; they were knights and jousted in mock tournaments or they were champion warriors, defending a field or a stone heap, or again they would set up opposing camps with a king in the midst of each” (page 4).

“Their imaginativeness gave them many sources of amusement. One of these lasted a long time — that of writing tales in letter form to be put under the vegetable-dishes at dinner and read aloud after it was over.”

Here is a very pretty story of Tennyson:

“My Aunt Cecilia (Mrs. Lushington) [Hallam Tennyson writes] narrates how in the winter evenings by the firelight, little Alfred would take her on his knee, with Arthur and Matilda leaning against him on either side, the baby Horatio between his legs, and how he would fascinate this group of young hero-worshippers who listened open-eared and open-mouthed to legends of knights and heroes among untraveled forests, rescuing distressed damsels, or on gigantic mountains fighting with dragons; or to his tales about Indians or demons or witches” (page 5).

“As to his earliest attempts at poetry he [Tennyson] wrote the following note for me in 1890:

“According to the best of my recollection when I was about eight years old, I covered two sides of a slate with Thomsonian blank verse in praise of flowers. . . . Before I could read I was in the habit on a stormy day of spreading my arms to the wind and crying out, “I hear a voice that’s speaking in the wind,” and the words “far, far away,” had always a strange charm for me. About ten or eleven, Pope’s “Homer’s Iliad” became a

favorite of mine, and I wrote hundreds and hundreds of lines in the regular Popeian meter, nay even could improvise them. . . .”

“The Idylls of the King”: Tennyson had for a long time entertained the idea of writing a poem concerning King Arthur. In the “Memoirs” are quoted a few paragraphs concerning his preparation for the task. Tennyson wrote that he [Arthur] lived about 50 A.D. and defeated his enemies in a pitched battle in the Welsh kingdom of Strathclyde; and the earliest allusions to him should be found in the Welsh literature of the seventh century. In the twelfth century Geoffrey of Monmouth collected the legends about him as a European conqueror in his “History of the Britons,” and translated them from Celtic into Latin. “Morte d’Arthur,” by Sir Thomas Malory, was printed by Caxton in 1485.

In the study of the King Arthur legends the teacher should map out the development of the stories in such a way that there will be a progression in which the child will be made familiar with the chivalric spirit of the time. In “Education,” for February, 1903, Maud Elma Kingsley has an article on a “Study of the Idylls of

the King." She considers that the study of these legends is important because they mark the beginning of our romantic literature, and form the basis of some of the very highest forms of our English poetry. This author writes: "The Idylls are full of episodes bringing out the different phases of Arthur's career in the various aspects of his character. Among the latter we notice his regard for a promise, his hatred of a lie, his recognition of the fact that obedience is the crowning virtue of knighthood, his generosity and keen sense of justice. Always he is a true friend and a loyal husband; a blameless king and a stainless gentleman."

From the same article the following paragraphs are quoted:

"THE ROUND TABLE AND ITS KNIGHTS.—This Round Table was literally a *round* table which had been made by Merlin for Uther, Arthur's father. Uther gave it to King Leodogran, and when Arthur married Guinevere, he received the table as a wedding-present. This table would seat one hundred and fifty knights, and each seat was appropriated. One of these seats was called the '*Siege Perilous*,' because it was fatal for any one to sit therein except the knight who was destined to achieve the Holy Grail. . . .

"Arthur, after his return to England, instituted an order of knighthood called 'The Knights of the Round Table.'

“The object of the Order and the vows taken by each knight are best stated in the poet’s own words:

“Follow the Christ, the King,
Live pure, speak true, right wrong, follow the King’;

* * *

“My knights are sworn to vows
Of utter hardihood, utter gentleness,
And loving, utter faithfulness in love,
And uttermost obedience to the King.’ . . .

“THE HOLY GRAIL.—When Merlin prepared the Round Table, he left a place vacant for the knight who should ‘achieve the Holy Grail,’ or Holy Vessel brought to Britain by Joseph of Arimathea.* The story of the Sangreal has entered so largely into all our literature that any set of students will doubtless be familiar with the broad outlines of the myth. They will know that the Holy Grail was the cup from which our Savior drank at the Last Supper with his disciples; that this cup was carried away into England by Joseph of Arimathea, and kept there, an object of adoration and pilgrimage for many years: that in process of time one of its keepers broke the vows which bound him to be faithful in thought and word and deed, whereupon the Holy Grail disappeared; that from that time the favorite enterprise of the knights of the Round Table was to go in search of it. . . .

“When Joseph of Arimathea, so the story goes, took our Lord’s body down from the cross, he received into the holy cup many drops of blood from the bleeding wounds of the slain Christ. This feature is obviously the foundation-principle of the Sangreal conception, as we shall see later; this brings the ‘wonder-working vessel’ into close relations with the mysteries of the eucha-

* *Matthew* xxvii.

rist; since, according to the accepted theology of the Middle Ages, 'where the body or the blood of Christ is, there are his soul and his divinity.' . . .

"In the Idyll, 'The Holy Grail,' we are told that the Queen, King Arthur, and all the knights saw the sacred cup as they sat at supper when Galahad was received into the fellowship of the Round Table; whereupon Sir Percivale made a vow that he would ride a twelvemonth and a day in quest of it, which example was followed by Bors, Lancelot, and Galahad."

In Brewer's "Reader's Handbook" the following topics are to be found:

"ARTHUR'S DRINKING-HORN.—No one could drink from this horn who was either unchaste or unfaithful. . .

* * *

"ARTHUR'S ROUND TABLE.—It contained seats for one hundred and fifty knights; three were reserved, two for honor and one (called the *Siege Perilous*) for Sir Galahad, destined to achieve the quest of the Sangreal. If any one else attempted to sit in it, death was the certain penalty. . . .

* * *

"EXCALIBUR, KING ARTHUR'S FAMOUS SWORDS.—There seems to have been two of his swords so called. One was the sword sheathed in stone, which no one could draw thence, save he who was to be king of the land. Above two hundred knights tried to release it, but failed; Arthur alone could draw it with ease, and thus proved his right of succession (pt. i. 3). In ch. 7 this sword is called Excalibur, and is said to have been so bright 'that it gave light like thirty torches.' After his fight with Pellinore, the King said to Merlin he had no sword, and Merlin took him to a lake, and Arthur saw an arm

'clothed in white samite, that held a fair sword in the hand.' Presently the Lady of the Lake appeared, and Arthur begged that he might have the sword, and the lady told him to go and fetch it. When he came to it he took it, 'and the arm and hand went under the water again.' This is the sword generally called Excalibur. When about to die, King Arthur sent an attendant to cast the sword back again into the lake, and again the hand 'clothed in white samite' appeared, caught it, and disappeared" (ch. 23).—Sir T. Malory, "History of Prince Arthur."

"EXCALIBUR'S SHEATH.—'Sir,' said Merlin, 'look that ye keep well the scabbard of Excalibur, for ye shall lose no blood as long as ye have the scabbard upon you, tho ye have never so many wounds.'"—Sir T. Malory, "History of Prince Arthur," i. 36 (1470).

LESSON XXIV

The Lesson : A subject such as the spectrum should be treated with the very greatest care. In the Standard First Reader a lesson on colors was given in which occurred a simple explanation of tints and shades. A diagram explanatory of this was drawn; it would be well for the teacher to consult it. [*Vid.* page 33, Standard First Reader; Manual, page 69.] The lesson itself deals with the prism and the colors

that are separated from the white light. A prism is inexpensive, and the teacher should have several for class use. Held in a certain position, as is shown in the colored picture, the prism will throw a spectrum upon the floor.

In Milton Bradley's "The Color Primer" (Milton Bradley Company), the author has the following to say concerning the solar spectrum (page 9):

"The solar spectrum has been called nature's chart of color, and while this may not be even approximately true, yet in it we must recognize the only source of permanent standards on which a logical system of color-study and color-nomenclature can be formulated.

"The scientist with his expensive and elaborate apparatus can produce in a very dark room a wonderfully brilliant and beautiful solar spectrum, so intense and immovable that it can be carefully studied and analyzed for hours and days, and it was these conditions which enabled a company of interested educators to evolve the scheme of color-study here advocated. Equally favorable conditions and apparatus are not necessary for elementary color-instruction, altho the writer has often wished that every teacher and every child could for once see a solar spectrum as perfect as can be produced with the apparatus of the modern physical laboratory.

"This being ordinarily impracticable, each teacher must use the best available facilities, and may always be sure that a spectrum, however imperfect, will be interesting to the children. For these experiments a very good prism can be bought for fifteen to thirty cents. . . .

“The explanation of the phenomenon of the spectrum is that the beam of white sunlight is composed of a great number of different kinds of rays of various colors, which, in passing through the prism, are refracted or bent from their direct course, some more than others, the red least of all and the violet most, and thus the white sunlight is made to present a beautiful band of color called the solar spectrum. It is supposed that light is projected through space by waves or undulations in an extremely rare medium called *ether*, which occupies all space and transparent bodies. These waves are thought to be somewhat similar to sound-waves in the air or the ripples on the smooth surface of a pond when a pebble is thrown into it. According to this theory a ray of light in passing through a prism is refracted from a straight line in proportion to the number of waves or undulations per second, and in inverse proportion to the length of the waves. The red waves are the longest and are refracted the least, while the violet are the shortest and are refracted the most.

“The colors in a solar prismatic spectrum are always the same under like conditions, and the order of their arrangement is never changed. By this quality of wave-length which is constant, any spectrum color can be definitely located in the spectrum, and hence can always be referred to by its recorded wave-length, and therefore can be used as a permanent, unvarying standard of color. . . .

“Altho a prism is such a very simple affair, the teacher will do well to try it in the schoolroom without the children the first time so that the best position for its use may be discovered. [*Vid.* page 21.] If it is not practicable to throw the spectrum on a white wall, a sheet of white cardboard should be hung so as to receive it. Having previously determined the best conditions at

a given time of the day, the management of the prism will be an easy matter when the lesson-hour arrives.

“It is not possible to produce in a well-lighted room a spectrum sufficiently brilliant to clearly define the six standard colors, red, orange, yellow, green, blue, and violet, but even under these conditions a beautiful spot of various colors may be seen and some of the colors named by the children. With closed blinds or dark curtains drawn, very good results may be secured, and the children can see that red is at the bottom of the pot of color, and that the other colors follow in order with a wide band of rather indefinite violet at the top. They can be told that the sunlight contains practically all the colors that are seen in the world, and that the reason we see the red of the rose is because the flower eats up all the colors except the red, which it gives back to us for our pleasure. The statement that all surfaces except white absorb some of the colored rays and reflect others may be reserved for a much later lesson in natural science.”

Color-Work : The following color-suggestions are given: The pupil will gain a much better idea of the spectrum, and the colors will be the more readily remembered, if color-drills are based upon the six spectrum colors similar to those suggested in the Teachers' Manual for the First Reader.

(a) Let the teacher have slips of colored paper showing the primary colors.

“By general consent,” says Milton Bradley, in his “Elementary Colors,” “colored papers have been chosen as the most avail-

able material for this work, because while relatively cheap the purest colors possible in pigments are secured." The same author also adds (page 79) in speaking of the spectrum: "Observation of the spectrum enthuses the children with a feeling for color which can be developed in no other way, and they never tire with watching the wonderful vibrating effect of the liquid colors; and by studying it the mental image of each of the six colors becomes as distinct as that of the cube after it has been handled and modeled."

(b) Cut from colored paper squares of violet, indigo, blue, green, yellow, orange, and red, and have the pupil arrange them in the order shown in the spectrum. If the letter combination *vibgyor* is remembered, the pupil will have no difficulty in placing the colors, since the component letters are initials of the colors themselves.

To train in the harmony of colors, the children might cut out colored squares, circles, or triangles, and arrange them in designs which could be pasted upon a white or gray background and taken home. The educational value of certain kindergarten plays of this character is deeply significant.

(c) Have the children name objects in the schoolroom, and group them according to color; ask what flowers are red, orange, yellow, etc., the same with fruit, and turning to the colored pictures throughout the Second Reader let the pupils pick out those things in the picture which are green, those which are blue, etc.

The child should be given work to do with the brush after drawing simple designs upon paper. It was suggested in the first lesson that the flag be drawn and either colored with a brush or with crayon. Upon a rod a number of strands of colored worsted might be tied, and each child in turn be sent to pick out those strands that are of a particular color. A case is on record where in a school this was tried, and several cases of color-blindness were detected. In the first of Froebel's "gifts" every kindergartener knows that the spectrum colors are introduced on different-colored balls. The child likes bright colors first, and is drawn to that object which contains the brightest color. When he has become a little older, tho, he begins to distinguish between the colors, and gradually there is developed a finer recognition

of tints and shades. Mrs. Wilson, in her "Nature Study in Elementary Schools" (The Macmillan Company), says:

"In color, I am convinced that the initial work, at least, should never be from small objects, but should deal with large masses in obvious perspective. With white chalk and blue paper all the different clouds may be represented; with the ordinary colored crayons, a series of pictures accurately representing the change of seasons as shown, even in cities, by the progressive changes in color, may be made by the children. After this, they may more safely attempt to portray smaller objects, such as the trees, and finally, perhaps, the animals and flowers which they are studying.

"With the older children I have found color-work with the plants and animals a great waste of time, from the science standpoint at any rate. They see and learn much more when they attempt to make an accurate drawing.

"With the little children the reverse is true."

Phonetics: Have the phonetic sentence read from the scientific spelling, emphasizing those vowel sounds in which there is a weakening toward *i* or *u*, and also drill upon the diphthongal sound *ai*.

The sentences given form a review of Lesson XXV in the Standard First Reader.

To the Teacher: (1) Do not allow an overcrowding in studies so as to take the play out of life.

(2) It is a law of nature that what we give yields harvest for us—not what we desire; what we give, not what we want, comes back to us. We can not give what we have not.

(3) Teach pupils that they are not so much to *copy* examples as they are to *set* examples.

LESSON XXVII

Review: The different words should be carefully sounded, besides which phonetic sentences should be written upon the board, to be read therefrom, and turned into the ordinary spelling.

Amusement: Should the teacher at any time in the foregoing or in any of the following lessons see that the children are becoming fatigued, she should have some form of recreation for them in the shape of games. Of books concerning the school-room games there are many. In "St. Nicholas" Magazine we find the following suggestive titles:

- (a) "Bubble-Blowing" (A. B. Beard), vol. 13, pp. 540-2.
 (b) "Paper Balloons" (D. C. Beard), 7, 728-34.
 (c) "Shadow-Pictures or Silhouettes" (J. Stacy), 10, 385-9.
 (d) "Soap Bubbles" (D. C. Beard), 8, 524-5.

Concerning form, consider the following, suggested in "Outlines of a Year's Work in the Kindergarten," by Anna W. Devereaux (J. L. Hammett Company), regarding measurement and drawing:

(1) Draw a square upon a piece of cardboard and cut it out, then another square of the same size, and place these squares in different positions in relation one to the other, as for example:



(2) Take two straight lines each one inch in length, and place them in different positions with reference to each other, as for example:

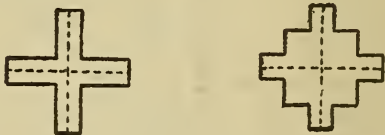


(3) Let the child describe graphically the difference between a cube and a cylinder, a square and a triangle.

(4) Take yellow circles and paste them upon a red background in different relations one to the other, as for example:



(5) *Stick-laying*: Toothpicks will answer the purpose here. Many interesting designs may be obtained, afterward to be drawn upon the board or upon pad, as for example:



LESSON XXVIII

A new treatment of birds is suggested in this lesson. One of the chief characteristics of many birds is the song, and studied from this viewpoint the four birds here mentioned stand as fair representatives of our songsters. What would the seasons be without the triumphant burst of bird melody in the springtime, the early morning carol, evening vespers, the cheery chirp of some bird in the sunlight, the mellow note of some rippling song in the heart of a forest? Many a bird is caught because of his beautiful song, and put into a cage with the careless and illogical belief that his happy song will be continued as well behind bars as on the other side; this is wrong. Many a bird once caught will remain silent for days, silent because his freedom is lost.

A bird flying from one clime to another comes within range of a gun and is shot. Should a traveler armed with a passport

from our Secretary of State pass from one country to another and be shot, the United States would take immediate action and demand not only explanation but justice from the government of the country in which the man was shot. An unwritten bird passport, it has been suggested, should be universally adopted throughout the world.

Before discussing the songs of birds, the following descriptions are quoted from Neltje Blanchan's "Bird Neighbors" and A. R. Dugmore's "Bird Homes," two books which, as we have had occasion to emphasize before, will prove of inestimable value to the teacher:

Thrushes :

"This group includes our finest songsters. Birds of moderate size, stoutly built; as a rule inhabitants of woodlands. . . . Only casual fruit-eaters. Slender, strong legs for running and hopping. True thrushes are grayish or olive-brown above, buff or whitish below, heavily streaked or spotted."

Of the many thrushes the hermit-thrush and the wood-thrush are the two that the teacher should mention in the classroom.

The descriptions of the birds are based on material in "Bird Neighbors."

Wood=Thrush (Song=Thrush):

Family.—Thrush. *Turdus mustelinus*.

Range.—Eastern North America.

Migration.—*Arrival*: April or early May. *Departure*: October.

Size.—8-8.3 inches; 2 inches shorter than robin.

Nest.—*Location*: In sapling or in the crotch of any tree. *Material*: Rootlets, mud, fine grass, paper, rags, snake-skins.

Eggs.—*Number*: 3 to 5. *Color*: Greenish blue.

Male and female: Brownish above, reddish on head and shoulders, shading into olive-brown on tail; throat, breast, and underneath white; whitish eye-ring.

Solitary, retiring songster at first, but now found in parks and country places—almost familiarly. Some conservative wood-thrushes keep their wild haunts. Every gesture is graceful and elegant. “Even a wriggling beetle is eaten as daintily as caviar at a king’s table.” The song is pure, liquid, and rich, and, as Neltje Blanchan says, in words it is like the following: “*Uoli=a=e=o=li=noli=nol=aeolee=lee!*”

Thrush (Hermit):

Family.—Thrush. *Turdus aonalaschkæ pallasii*.

Range.—Eastern North America.

Migration.—*Arrival*: April. Summer resident. *Departure*: November.

Size.—7.25-7.5 inches; one-quarter smaller than robin.

Nest.—*Location*: On ground, in damp, woody places.

Material: Pine=needles, moss, leaves, roots.

Eggs.—*Number*: 3 to 4. *Color*: Bluish green.

Male and female: "Upper parts olive-brown, reddening near the tail. . . . Throat, sides of neck, and breast pale buff. Feathers of throat and neck finished with dark arrow=points at tip; feathers of the breast have larger rounded spots. Sides brownish gray, underneath white. A yellow ring around the eye. Smallest of the thrushes."

The hermit=thrush is the first to come in the spring, the last to go in the fall. He gives the evening hymn. John Burroughs says of his song:

"It is not a proud, gorgeous strain like the tanager's or the grosbeak's. It suggests not passion or emotion—nothing personal, but seems to be the voice of that calm, sweet solemnity one attains to in his best moments. It realizes a peace and a deep, solemn joy that only the finest souls may know."

Meadow=Lark :

Family.—Blackbird. *Sturnella magna*.

Range.—Eastern North America.

Migration.—*Arrival*: April. Usually resident. *Departure*: October.

Size.—10-11 inches; larger than robin.

Food.—Grasshoppers, beetles, ants, leaves.

Nest.—*Location*: On the ground in open fields. *Material*: Grass.

Eggs.—*Number*: 4 to 6. *Color*: White, speckled at the large end with reddish brown and lilac.

Male: “Upper parts brown, varied with chestnut, deep brown, and black; crown streaked with brown and black; . . . dark brown line apparently running through the eye; . . . a large, conspicuous black crescent on breast; underneath yellow. . . . Long, strong legs and claws adapted for walking. Less black in winter plumage. *Female* paler than the male.”

Neltje Blanchan, in her “Bird Neighbors,” writes as follows:

“The meadow-larks, which are really not larks at all but blackbirds’ and orioles’ cousins, are so protected by the coloring of the feathers on their backs, like that of the grass and stubble they live among, that ten blackbirds are noticed for every meadow-lark, altho the latter is very common. . . . Their clear and piercing whistle, ‘Spring o’ the y-e-a-r, spring o’ the year!’ rings out from the trees with varying intonation and accent, but always sweet and inspiring.”

Consult A. R. Dugmore’s “Bird Homes.”

Catbird:

Family.—Mocking-bird. *Galeoscoptes carolinensis*.

Range.—British Provinces to Mexico.

Migration.—*Arrival*: May. *Departure*: November.

Size.—9 inches; 1 inch shorter than robin.

Food.—Grasshoppers, mulberry, cherry, strawberry.

Nest.—*Location*: In briars or low bushes. *Material*: Sticks, leaves, roots, weeds, and bark; it is lined with roots.

Eggs.—*Number*: 3 to 5. *Color*: Dark greenish blue.

Male and female: “Dark slate above; below somewhat paler; top of head black; distinct chestnut patch under the tail, which is black; feet black also; wings short, more than two inches shorter than tail.”

Neltje Blanchan calls this bird a jester, a caricaturist, a mocking-bird, a veritable Dr. Jekyll and Mr. Hyde; at one moment proud and haughty, at another assuming a most hangdog air.

A. R. Dugmore, in his “Bird Homes,” writes of catbirds as follows:

“These well-named and well-known birds rank high in the list of our songsters; their song, which tho small in volume is full of sweetness, may be heard at almost any time of the day and in almost any thicket.”

Cardinal:

Family.—Finch. *Cardinal cardinalis*.

Range.—Eastern North America.

Migration.—Resident. Travels in flocks.

Size.—8-9 inches; smaller than robin.

Food.—Seeds.

Nest.—*Location*: Bush, usually in thick tangle. *Material*: Twigs, tendrils, grape-vine, bark, leaves, grass, roots; lined with grass and roots.

Eggs.—*Number*: 3 to 4. *Color*: Whitish, tinged with blue, green, and ashy; irregular spots of brown and purplish gray.

Male: “Brilliant cardinal; . . . beak stout and red; crest conspicuous. In winter dress, wings washed with gray.”

Female: “Brownish yellow above, shading to gray below. Tail shorter than the male’s. Crest, wings, and tail reddish; breast sometimes tinged with red.”

This lesson is written from the standpoint of birds’ songs. Little has been written about birds’ songs in particular; only references have been made to this characteristic of a bird. However, in “Wood Notes Wild; Notations of Bird Music,” by Simeon Pease Cheney, edited by John Vance Cheney (Lee & Shepard, 1892), much valuable material may be obtained in regard to this subject; for the author, with a very evident knowledge of music, went into the fields, and, finding his birds, wrote in musical notes the sounds as they appeared to him. If such sounds are played upon the piano in the classroom, interest

will be awakened. The following is gleaned from this work:

Brown Thrush: He might be called the Browning among birds. "As the fervor increases, his long and elegant tail droops; all his feathers separate; his tail plumage is lifted; it floats and trembles; his head is raised and his bill is wide open" (page 54).

Wood=Thrush or Song=Thrush: "Probably the most popular songster of all of the thrushes. Not so varied, but the quality of the tone is indescribably beautiful."

Hermit=Thrush: Despite critics to the contrary who claim the hermit=thrush a mute bird, Mr. Cheney states that it is the most eminent vocalist among all birds found in New England:

"The hermit, after striking his first low, long, and firm tone, startling the listener with an electric thrill, bounds upward with thirds, fourths, and fifths, and sometimes a whole octave, gurgling out his tribulation, with ever-upward movement. Occasionally on reaching a height his song bursts like a rocket, and the air is full of silver tones. A second flight and the key changes with a fresh, wild, and enchanting effect." [See pages 60 and 61 for the description of the long, clear tone in a deep, still forest.]

Catbird: He has not a strong voice, so Mr. Cheney writes, nor has he really a

tone. Possessing something of the style of the brown thrush, he is not his equal in tone, making use of the notes of various other birds. His performance is given in a lively manner, with an occasional trill, sweet and musical. Much of his singing, however, is merely twitter.

“This bird received his name doubtless from the striking resemblance his own tone bears to certain cries of a cat” (see page 53).

Meadow=Lark: “Probably our largest singing bird. His voice is neither loud nor deep, some of the tones being rather sharp and weak.”

The meadow=lark’s song is essentially tender and plaintive. In the early dewy morning or toward evening he will stand a long time upon a stem or large rock=heap, singing at intervals little snatches of melody, occasionally like the oriole and the kingfisher giving a “low, rapid, chattering monotone.” “It is a favorite pastime with him to repeat four tones many times in succession, with rests intervening” (see pages 33–34).

From “Familiar Life in Field and Forest” (F. Schuyler Mathews):

“I must quote what he [John Burroughs] says [of the hermit-thrush]: ‘A strain has reached my ears from out the depths of the forest that to me is the finest sound in nature—the song of the hermit-thrush. . . . It appeals to the sentiment of the beautiful in me, and suggests a serene religious beatitude as no other sound in nature does. It is perhaps more of an evening than a morning hymn, tho I hear it at all hours of the day. It is very simple, and I can hardly tell the secret of its charm. ‘O spheral, spheral!’ he seems to say; ‘O holy, holy! O clear away! O clear away!’ interspersed with the finest trills and the most delicate preludes.”

Phonetics: The first definite drill upon the first diphthongal sound is given. In such words as *why*, *sides*, *like*, etc., the sound represented by the symbol *i* has usually been called the long sound of *i*; but upon a careful analysis of the subject it will be found that there are two sounds, the *ā* in *father*, plus the *î* in *machine*. The teacher should be careful that while one sound is produced the values of the component parts are distinctly heard in pronunciation. Attention should be called to the **hw** sound in such words as *why* and *while*.

LESSON XXIX

The Lesson : The events leading to the signing of the Declaration of Independence are so well known to every American teacher that they scarcely need repetition. A few facts, however, are here given, not so much because they are new, as because being so well known they might escape the attention of the teacher.

DECLARATION, How the, Was Adopted.—“It was desirable that a fact of such supreme importance as the birth of thirteen new nations should not remain merely a matter of logical inference. It must be embodied in a declaration incapable of misinterpretation, not open to be explained away by ingenious constructions or canceled by technical arguments. Independence could not be left to be gathered among the recitals of a preamble. . . . On June 7 Richard Henry Lee, of Virginia, moved ‘certain resolutions respecting independency.’ John Adams seconded the motion. Its consideration was referred to the next morning at ten o’clock, when members were ‘enjoined to attend punctually.’ A debate of three days ensued. It appeared that four New England colonies and three southern colonies were prepared to vote at once in the affirmative; but unanimity was desirable and could probably be obtained by a little delay. So a

postponement was voted until July 1. . . . Three committees were appointed; one was charged with drafting the document itself, so that it should be ready for adoption on July 1. The members of this committee, in order of precedence, were Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman, and Robert R. Livingston. On July 1 debate was resumed in committee of the whole on the original resolution of Mr. Lee, which was reported to Congress and carried by that body on the next day. The Declaration was then at once reported and discussed until late on July 4. The question of independence was really settled July 2, but posterity has selected July 4, the anniversary of the adoption of Jefferson's Declaration."—*John T. Morse, Jr., in Life of John Adams.* [See "Holy-Days and Holidays" (Funk & Wagnalls Company), page 635.]

The hall in which they held their meeting was thenceforth to be known as Independence Hall, and the old Liberty Bell that rang the joyful tidings is still preserved.

Make certain phrases and sentences of the Declaration familiar to the children, such, for instance, as: "All men are created equal"; "Life, liberty, and the pursuit of happiness are inalienable"; "Government derives its just power from the consent of the governed."

Independence Day: Quoting from a letter of John Adams to his wife, we find the following:

“The second day of July, 1776, will be the most memorable epoch in the history of America. I am apt to believe that it will be celebrated by succeeding generations as the great anniversary festival. It ought to be commemorated as the day of deliverance by solemn acts of devotion to God Almighty. It ought to be solemnized with pomp and parade, with shows, games, sports, bells, bonfires, and illuminations from one end of this continent to the other, from this time forward forevermore. You will think me transported with enthusiasm, but I am not. I am well aware of the toil and blood and treasure that it will cost us to maintain this Declaration, and support and defend these States. Yet through all the gloom I can see the rays of ravishing light and glory. I can see that the end is more than worth all the means; and that posterity will triumph in that day's transaction, even tho we should rue it, which I trust in God we shall not.” [See “Holy-Days and Holidays,” page 636.]

Phonetics: While phonetics are not indicated in the lesson, the teacher will find upon examining the text that there are many words which should be placed upon the board with their phonetic spellings for pronunciation purposes, for example: *England, Virginia, declared, Jefferson, Declaration, Independence*, etc. Also let the teacher write upon the blackboard such sentences as: “One day in Philadelphia it was decided that the King of England could no longer be King over the people in America.” Have each vowel

sound pronounced distinctly and clearly, and again resort to that method by which the child is sent to the opposite side of the room, and made to pronounce in ordinary tone each word distinctly. Select from the text words containing the first vowel sound, and have them written in phonetic spelling. See that every word of the text is understood. The best test for this is for the teacher to use the word in a sentence, or to have the child use the word himself. In the obscure sounds where there is variation, care should be taken that the variant sound is given *rather than the sound toward which it varies*.

LESSON XXX

The Poem here used was published in "St. Nicholas" Magazine (The Century Company), and is given to be memorized by the pupil after it has been read by the teacher, and pronunciation drills based upon it. Either the entire poem might be placed in phonetics upon the board or individual words with phonetic spelling

be written upon cards, and passed around the class; such words as: *rattle, ledge, ruffle, iceberg, polar, glittering, castle*. But it should be borne in mind by the teacher that in reading, the child should be first impressed with the general spirit of the piece, and this is best brought out in this case by related subjects or topics:

(1) Consult "St. Nicholas" Magazine indexes under *skating, icebergs, etc.*

(2) In Mrs. L. L. Wilson's "Nature Study in Elementary Schools" (The Macmillan Company), the following poems are found: "November," by Thomas Hood; "November," by Alice Cary; "November," by William Cullen Bryant; "In November Day," by John G. Whittier.

From these poems particular lines could be selected that are simple, and yet give thoroughly the spirit of the season. For stories see "The Story Hour," by Mrs. Wiggin and Miss Smith.

November suggesting the harvest-time, turn to the lesson on nut-trees; show the oak-trees in autumn colors; have autumn leaves collected and brought to the classroom. The change in temperature indicates variation of weather in autumn days,

and the use of the thermometer by this time should be taught the child. Talk about Nature and her preparations for winter. Other subjects of interest for talks could be (1) sparrow (see bird lesson); (2) ice and icebergs (see lesson, polar bear and Eskimos); (3) skating (see lesson on Holland); (4) November (see lesson, food-trees).

To the Teacher :

(1) We need teachers who know the world, and who are heartily in sympathy with it.

(2) A radical change of method is needed in spelling-reform; let the progress be slow (conservative), but let it be progress.

(3) Never lose an opportunity to impress upon the mind of the pupil the dignity of the human intellect, the transcendent power of ideas. Show that Nature is full of suggestions to the mind of man. A mole burrowing under the ground may give a suggestion of the great system of tunnels for our railroads; the flying bird, a suggestion for the flying kite and the flying man of the future. A beetle, by converting a mass of matter into spheres which it is thus able to roll, may suggest primitive wagon-wheels cut out of a sphere, but it is the brain of man that carries up this idea to bicycles, and huge steamers, and great locomotives. Teach the child that the same Providence that made outside nature made also the nature inside the brain, and that outside nature is a great schoolhouse in which all the human race is put to school.

LESSON XXXI

The Lesson: This lesson should be treated according to the suggestions given in the first of the science lessons. Outline some simple experiments, showing by means of a thermometer placed in water at what point water freezes, and gradually heat the water until the boiling-point has been reached. The topic analogous to freezing naturally follows; this may be explained by taking a pan of chipped ice or a pan of snow-ice, and in the center placing a tumbler of lukewarm water, holding a thermometer. Let the children watch the gradual fall of the mercury, and tell them that this is caused by the absorption of the heat by the ice. Then follows the analogous topic: why vapor is changed into snowflakes. The atmosphere becomes so cold that the aqueous vapor in the air is frozen and takes the feathery appearance of snowflakes. The teacher should outline a lesson dealing with snow and snow-

crystals; the following suggestions are offered. [See Lewis Carroll's selection on page 95 of the Reader.]

In Ganot's "Physics," the following terms are defined:

"*Snow* is water solidified in stellate crystals, variously modified, and floating in the atmosphere. These crystals arise from the congelation of the minute vesicles which constitute the clouds when the temperature of the latter is below zero. They are more regular when formed in a calm atmosphere." [The illustration at the head of the lesson gives some of the forms of crystals.]

The *snow-line* is that point above the level of the sea at which the snow does not melt, even in summer.

Sleet is solidified water made of icy needles pressed together in a confused manner.

"*Hail* is a mass of compact globules of ice of different sizes which fall in the atmosphere. . . .

"*Ice* is an aggregation of snow-crystals. . . . The transparency of ice is due to the close contact of these crystals, which causes the individual particles to blend into an unbroken mass, rendering the substance optically as well as mechanically continuous. When large masses of ice slowly melt away, a crystalline form is sometimes seen by the gradual disintegration into rude hexagonal prisms; a similar structure is frequently met with . . . in the ice-caves or glaciers of cold regions."

The teacher could tell the children of the time when certain portions of the world were covered with ice. This may now be proved by the way in which rocks are planed down and scratched or chiseled with lines.

Experiment and Observation :

From "Object Lessons in Elementary Science" (The Macmillan Company), we take these suggestions, which likewise were referred to in the Teachers' Manual for the First Reader:

"Put a cork into water; what happens? It floats. Put a stone in; what happens? It sinks. Why does cork swim and stone sink? Cork is lighter than water; stone is heavier. Now, put this piece of ice into the water. It floats. [This proves that ice is lighter than water.] Lead up from this to make the class talk about the frozen ponds in winter-time. Where do we find the ice? On the surface. Is the whole pond solid ice? No. Tell of the fishes and plants that live in the water; what would become of them if the whole of the water in the pond froze into solid ice? They would be frozen and destroyed. There is only a sheet of ice covering the surface of the water. It is lighter than the water itself, and so it floats on the top. When it breaks we see the water below. Tell that this sheet of ice on the top actually protects the water against the cold. Without it fishes and water-plants would die. . . .

"Lead the class to talk about a snow-storm. . . . Carry the class back to talk about the evaporation constantly going on all around us—the vapor rising at first invisibly; then condensing into fog, mist, or cloud.

"Let them imagine the air around this condensed vapor to become suddenly cold—cold enough to freeze the tiny particles of condensed vapor. . . . Tell the uses of snow in protecting the earth and the plants from frost."

From "Nature Study in Elementary

Schools," by Mrs. L. L. Wilson, we take the following facts:

"The relation between raindrops and snowflakes is very close. For example, the rains of winter are often due to the fact that the snow melts before reaching the earth, so that from the same clouds may fall snow on the highlands and rain in the valleys. Snowflakes have six parts. This is because the ice-needles acting like small magnets are attracted and repelled by laws of their own, forming regular and very beautiful forms on the hexagonal plane."

Literature: As suggested by Mrs. Wilson, consult Hawthorne's story "Snow Image," a poem by Tennyson called "Winter," and a poem by Lowell called "The First Snowfall."

LESSON XXXII

OXEYE DAISY

Name.—Daisy. *Chrysanthemum Leucanthemum*.

Family.—Thistle.

Species.—White or oxeye.

Flower-head.—Disk-florets yellow, surrounded by white ray-florets.

Stem.—Smooth, rarely branched, 1 to 3 feet high.

Leaves.—Mostly oblong in outline, coarsely toothed and divided.

Preferred habitat.—Meadows, pastures, roadsides, waste land.

Flowering season.—May to November.

Distribution.—Throughout the United States and Canada.

BLACK-EYED SUSAN

Name.—Daisy. *Rudbeckia hirta*.

Family.—Thistle.

Species.—Oxeye or black-eyed Susan.

Flower-head.—From 10 to 20 orange-yellow, neutral rays around dark purplish-brown disk of florets, containing stamens and pistil.

Stem.—1 to 3 feet tall, hairy, rough, usually unbranched, often tufted.

Leaves.—Oblong to lance-shaped, thick, sparingly notched, rough.

Preferred habitat.—Open sunny places, dry fields.

Flowering season.—May to September.

Distribution.—Ontario and the Northwest Territory south to Colorado and the Gulf States.

DANDELION

Name.—Dandelion. *Taraxacum Taraxacum*.

Family.—Chicory.

Species.—Common.

Flower-head.—Solitary, golden-yellow, 1 to 2 inches across, containing 150 to 200 perfect ray-florets on a flat receptacle at the top of a hollow milky scape, 2 to 18 inches tall.

Leaves.—From a very deep, thick, bitter root, oblong in outline, irregularly jagged.

Preferred habitat.—Lawns, fields, grassy waste places.

Flowering season.—Every month in the year.

Distribution.—Around the civilized world.

BUTTERCUP

Name.—Buttercup. *Ranunculus acris*.

Family.—Crowfoot.

Species.—Common meadow.

Flower-head.—Bright, shining yellow, about 1 inch across, numerous, terminating long slender footstalks.

Stem.—Erect, branched above, hairy (sometimes nearly smooth), 2 to 3 feet tall, from fibrous roots.

Leaves.—In a tuft from the base, long-petioled, of 3 to 7 divisions, cleft into numerous lobes.

Preferred habitat.—Meadows, fields, roadsides, grassy places.

Flowering season.—May to September.

Distribution.—Naturalized from Europe, in Canada and the United States.

The material above is condensed from Neltje Blanchan's "Nature's Garden."

The Pansy belongs to the family of violets, and in color varies. It grows in a rich and moist ground and blooms from April to August.

The Buttercup: Procure the flower, if possible; if not, place before the class a picture of the same for study. It is most common in the northern part of the United States. Neltje Blanchan, in her book "Nature's Garden" (Doubleday, Page & Company), writes that the buttercup, because of its poisonous or bitter juice, is not a favorite among cattle. Unfortu-

nately such a beautiful flower as this is used by the hypocrite beggar to produce sores upon his skin. There are many varieties of buttercups, among them being the creeping buttercup, which spreads by runners, and the swamp= or marsh=buttercup. [Consult Mathews' "Familiar Flowers of Field and Garden" and Parsons' "According to Seasons."]

The Dandelion: The teacher will remember the descriptive poem by James Russell Lowell, which begins:

"Dear common flower that grow'st beside the way,
Fringing the dusty road with harmless gold."

She will find it of advantage to use this description in connection with the actual examination of the flower itself.

The roots of the dandelion penetrate to great depths; if the plant is cut off at the surface of the earth, from the root left in the ground several branches will spring up. This is one of the hardest of our flowers to stamp out of any neighborhood. The derivation of the word *dandelion* is from the French *dent de lion* (lion's tooth), and is so called on account of the jagged edges of the leaves.

The Daisy: This common flower is also called "love=me, love=me=not." It is interesting to know that this flower belongs to the thistle family and that it is associated with the same kind of superstition as the common thistle. Many a child will approach a thistle, pluck it, and with one breath blow to see how many of the "feathers" remain. The number standing represents the number of sweethearts the child has. Continuing a little farther, she picks a daisy, and with patience, to a certain extent excitement, goes around the whorl of petals to see whether her sweetheart loves her or not. [Consult "Folk-Lore of Plants."] No flower has been considered so much by poets as this wee, modest blossom. Chaucer, Shakespeare, Burns, and Wordsworth have all joined in its praises. [See Lesson XLIII for Bliss Carman's poem on "Daisies."]

To the Teacher: In the study of the flowers here suggested, if the lesson does not fall during their season, it should be reviewed when that time arrives. It will be noted that these flowers have been selected with the idea that they may all be found in one month, the month of June. Study

the picture. Talk about it and bring out the main points through similarity and contrast. Ask such questions as: "Among the flowers in the picture, how many contain yellow or orange?"—Answer: Pansy, buttercup, dandelion, daisy, honeysuckle, etc.

On the blackboard let the teacher draw in outline the pansy and the daisy, and have the pupils draw upon pad or blackboard the outline also. If the leaves can be procured, have them traced. In this way the child will become familiar with the shape of the flowers and with those features which distinguish the one from the other.

Outdoor work is to be encouraged.

Folk-Lore of Flowers: Concerning the folk-lore of flowers, we take from "Flowers and Flower Lore," Rev. Hilderic Friend (W. Swan, Sonnenschein & Company), the following interesting extracts relative to the flowers mentioned in the lesson:

(1) *Pansy*. — "Its name is from the French word *pensées* (thoughts), and in the floral language of France this favorite flower means 'think of me' (*pensez à moi*).

We never catch Shakespeare napping; here again he is on the watch and says:

“‘And there is pansies—that’s for thoughts. . . .’”

“In Somersetshire pansies are called bird’s=eyes; and a large yellow pansy, for example, will be pointed out by the expression ‘Look at this yellow bird’s=eye.’”

(2) *Buttercup*.—This flower, among some country people, is called crazy, for it is thought to be an insane herb.

“‘Throw those nasty flowers away,’” said a country woman to some children who had gathered a handful of buttercups, “‘for the smell of them will make you mad’” (page 327).

(3) *Dandelion*.—“The dandelion opens between six and seven o’clock, and possesses a very peculiar means of sheltering itself from the heat of the sun, as it closes entirely whenever the warmth becomes excessive. . . . The schoolboy often gathers the ripe stalk and blows at the crown which contains the seeds attached to a coronet of delicate hairs in order that he may learn the hour of the day:

“‘Dandelion, with globe of down,
The schoolboy’s clock in every town,
Which the truant puffs amain
To conjure lost hours back again.’”

If the down of the dandelion flies off in certain weather it is a sign of rain.

(4) *Daisy*.—“I find the oxeye daisy called dun=daisy in Somerset, and this is neither more nor less than an abbreviation of thunder=daisy.”

Among the flowers which bear the stamp of daytime upon them the daisy may be mentioned. We quote:

“How long the flower has been known as the day’s=eye among us I am scarcely prepared to say. . . . ‘It is the day’s=eye, the bright little eye that opens only by day and goes to sleep at night.’” [See Chaucer.]

“Men by reason well it calle may
The Daisie or else the Eye of Day,
The Empresse and the flowre of flowres all!”

“The daisy comes into notice in the saying that it is not spring till you can put your foot upon twelve of these flowers.”

The daisy has always occupied a very high position among royalty. Margaret of Anjou chose the daisy as her own flower, and the nobles wore it in her honor. In England and France and Italy the flower was worn.

(5) *Tulip*.—“The tulip, so much admired

in Oriental lands on account of its splendor and variety, has from time immemorial been made the emblem by which a young Persian declares his love and affection. Chardin tells us that when these young men in turbans and flowing robes present a tulip to a gentle maiden, it is their intention to convey to her the idea that, like this flower, they have a countenance all on fire, and a heart reduced to a coal" (page 463).

(6) *Lily-of-the-Valley*.—The lily-of-the-valley used in former times to be placed in churches in honor of the Virgin Mary; not only the lily-of-the-valley, but also the lily was so used.

"Gerarde sayeth that the 'flowers of the lily-of-the-valley being close stopped up in a glass, put into an ant-hill, and taken away again a month after, ye shall find a liquor in the glass, which being outwardly applied helpeth the gout'" (page 371).

The lily-of-the-valley represents happiness and sweetness; the mention of it recalls what the Master said: "Consider the lilies of the field how they grow; they toil not, neither do they spin: and yet I say unto you that even Solomon in all his glory was not arrayed like one of these."

LESSON XXXIII

Palissy :

No account of the history of pottery would be complete without giving some details of the life of Bernard Palissy, who was born about 1510 in France.

At an early age, according to Edward Everett Hale in his "Stories of Invention" (Little, Brown & Company), he worked not as a glazier, but at cutting up pieces of glass and coloring them for church windows. The following is a condensation :

He came across a cup of enamel pottery, doubtless from Italy. "This cup," he says, "was of such beauty that from the moment I saw it I entered into a dispute with myself as to how it could have been made." What puzzled Palissy was how the enamel was made by which the vessel was kept water-tight. "What others have found out," he said, "I might also discover; and if I could once make myself master of the art of glazing, I feel sure I could elevate pottery to a degree of perfection yet unknown." So he started to work indefatigably and experimented with many substances, buying a furnace to bake his experiments. He went so far as to give up his work to devote himself to finding out the secret.

Failure after failure did not discourage him, altho people looked upon him as crazy, since he was so persistent in his attempts to find out how enamel was made. At this time he received a government position which set his mind at rest, but he did not give up the original idea. There came a time which he had resolved should be the last, when he repaired to the glass-works accompanied by a man loaded with more than three hundred different patterns on bits of pottery. For four hours Bernard gloomily watched the progress of baking; suddenly he started in surprise. Did his eyes deceive him? No, it was no illusion; he had found enamel. After this he worked persistently, making vases of different shapes, then covering them with enamel, and despite the fact that his friends and trades-people deserted him, he proceeded day and night with his experiments; but he was to have his reward, for when the coarse vases were taken out of the oven they were found to be covered with a white smoothness. Throughout this stage it is the history of a man who was struggling and yet who was determined not to give up. For sixteen years he strove till he finally succeeded and became one of the famous men of his town. He died in the Bastille rather than abjure his religious faith, after having narrowly escaped being killed in the terrible massacre of St. Bartholomew.

Modeling : From Milton Bradley's "Clay Modeling in the Schoolroom" we have condensed the following suggestions:

"In all educational work, the principle of originality is the one which arouses interest, assists progress, and enriches humanity. . . . To originate, develop, or ascertain something, before unknown and untold, is the perfection of individual mental effort. . . .

“ In joining parts of the object together, smooth gently with the tip of the finger. . . . Do not smooth too much, as pressure has a tendency to spoil the life-like curves and thus destroy the resemblance.”

There are seven series of objects in Mr. Bradley's course of modeling which it would be well for the teacher to talk about :

Sphere.—Sugar-bowl.

Oblate Spheroid.—Turnip.

Prolate Spheroid.—Soup-tureen.

Ovoid.—Pear.

Cone.—Funnel.

Cylinder.—Pump.

Cube.—House.

It will be seen that, from the very first, form is associated with familiar objects, which should not be modeled until after the “normal” or geometrical type has been explained. In the Teachers' Manual for the First Reader, this method was suggested under the notes for the modeling lesson of the book. Similarity and contrast were brought out by means of conversations held between the teacher and pupils. This power of getting a child interested in an object by questions that are vital to the lesson is very important. The art of questioning is a great art, and, properly used, will elicit some answer from the pupil.

Story : An amusing story may be told to the children, concerning the manner in which Chinamen do what they are told to do; the teacher may simplify the words if necessary:

A certain gentleman went to China, and there invested in a dozen plates of rare value. On his return to America, one evening at a dinner party one of the beautiful plates dropped to the floor, and broke exactly in half. This, of course, spoiled the set, and so the gentleman had the plate glued together, leaving a streak down the center where the pieces joined. Thinking that it would be wise to order not only this extra plate from China, but also an extra half dozen in case of another accident, the mended plate was forwarded to the company in China with an order to have seven plates made exactly like the sample. Months passed, and finally the gentleman received a package from China, none other than the seven plates themselves. On opening the package, what was the gentleman's surprise to find the seven plates just as he had ordered, only down the center of each plate was to be found the crack, as shown in the original plate he had sent.

There is an evident moral in a little tale of this kind.

Pronunciation : The introduction of the diphthongal sound **au** is here given with careful directions as to the positions of the vocal organs. These directions have been carefully prepared, and should be used by the teacher. Take the several words given

in the drill, and have them carefully and naturally sounded. This **au** sound is a broad one, and children unconsciously use it when they are hurt, in such words as "ouch" and "ow." The additional pronunciation drill consists of difficult words found in the text. *Porcelain* is the only word to which the teacher will have to pay special attention.

LESSON XXXIV

The Lesson: Wise is the man who knows that he knows little. This lesson is based on Odin and his search for wisdom, and in story form should be interpreted in its broadest sense. The children will look at it, not in its deep significance, but simply as a fairy-tale.

In the story the teacher is to explain (a) The Norns who spin human destiny. The three kept watch over the waters of life, and could look into the past, the present, and the future. Their counterpart is to

be found in Grecian mythology under the name of the "Three Fates." (b) The Norsemen and their hardiness. Here the cruelty of the warriors may be justly softened in the teacher's description, for their cruelty was not so great according to their customs as it would seem according to modern standards. The Norsemen were bold, stern, daring, unyielding in war, but just when justice was needed, awake to those broad sweeps of passion that are only known to those who live a life of freedom.

The teacher will find much material of value in the "Norse Stories" told by Hamilton W. Mabie (Dodd, Mead & Company). In his introduction, speaking of these early Norsemen, Mr. Mabie writes: "They loved danger, and their heroes were men who thought little of death. . . . They had in their souls a deep love of truth, and power, and action, the qualities which make men alive, keep them free, and give them authority; . . . they thought of life as a tremendous fight, and they wanted to acquit themselves like men; bearing hardships without repining, doing hard work honestly, and with a whole heart, and dying with their faces toward their foes."

At the end of this book under a note to the teacher, the following is suggested: "The children should be left to appropriate these myths through sheer joy of imagination. Let them carve out Viking ships, hang a Ygdrasil, and then . . . build a house about a Branstock, map out for themselves Asgard, and Midgard, and Utgard; . . . let them act the Thor stories with the strut of giants and bang of hammer that their Norsemen instincts may crave (and the teacher's nerves can bear)." For the teacher's own preparation we refer her to Carlyle's essay, "The Hero as Divinity," in "Hero and Hero-Worship," in which Odin is taken as the type. Should she wish to continue further, Matthew Arnold's "Balder Dead" and William Morris' "Sigurd, the Volsung" will furnish much material on the subject.

Related Subjects: (a) "The Wise Men."

The teacher may tell of the three wise men in story form, but it must be remembered that the subject of religion in education should be treated in a general way, since in all schools there are liable to be found children of many sects come together.

In various forms the story has been told; one by Dr. Henry Van Dyke, "The Other Wise Man," in which he contends that there were four wise men, and he tells why it is that the fourth wise man never reached the manger.

The Seven Wise Men: In Brewer's "Reader's Handbook," the following verse signed "E. C. B." tells the tale:

"First Solon, who made the Athenian laws;
While Chilo, in Sparta, was famed for his saws;
In Milētos did Thales astronomy teach;
Bias used in Priēnē his morals to preach;
Cleobulos, of Lindos, was handsome and wise;
Mitylēnē 'gainst thraldom saw Pittacos rise;
Periander is said to have gained, thro' his court,
The title that Myson, the Chenian, ought."

The Goddess of Wisdom: Minerva was the Goddess of Wisdom springing completely armed from the head of Jove. Her favorite bird was the owl. She presided over agriculture and navigation, likewise over spinning, weaving, and needlework. She was a warlike divinity also. [Consult Bulfinch's "Age of Fable."]

For articles on the Norsemen and their Viking ships, consult "St. Nicholas" Magazine, Vol. XX, page 745, and Vol. XXV, page 864.

Pronunciation Drill: Altho no drills are indicated, it is not meant that phonetic drills should be omitted. The teacher should make selections of particular vowel sounds for the children. Phonetic exercises should be given every day.

LESSON XXXV

The Picture: The colored picture accompanying this lesson shows the birch-tree in winter stripped of its foliage; but so that the picture may be useful for all seasons, the leaf and fruit of the birch-tree as they are in summer-time are shown in the picture at the bottom. In the woods or wherever it may be found, the birch-tree is often distinguishable by the thin plates like paper, which are so easily stripped off. From Harriet Keeler's "Our Native Trees" (Charles Scribner's Sons) the following material is taken. The teacher is likewise referred to F. Schuyler Mathew's book "Familiar Trees and Their Leaves" (D. Appleton & Company).

The Birch-Tree: In North America there are nine trees of the birch family. All of the trees are of singular grace and beauty. The roots are fibrous, and the trees can be readily transplanted; all grow rapidly. The bark of the birch is practically imperishable because of the resinous oil it contains (Keeler, page 295). Its decided color gives the common names red, white, black, and yellow to the different kinds of birch. The wood is close-grained with a satiny texture and capable of taking a fine polish. The leaves of the different species vary but little.

BIRCH

Name.— Birch. *Betula papyrifera*.

Family.— Birch.*

Species.— Paper.

Height.— 60 to 70 feet.

Distribution.— Northern range.

Bark.— Light brown.

Color of wood.— Light brown tinged with red.

* Miss Keeler places the paper birch in the birch family; most botanists characterize it as belonging to the oak family; the former is a popular rather than a scientific classification, and, for children, is clearer, since to say the *birch* belongs to the *oak* family would lead to confusion. The teacher must remember that the "science" will come later, after the children have grasped the *general characteristics*; we have thought it best to quote from sources that are not too technical.

Description of wood.—Light, hard, tough, close-grained, and strong.

Use of wood.—Spools, shoe-lasts, wood-pulp, fuel.

Leaf.—2 to 3 inches long, about 2 inches broad.

Color of leaf.—Dull, dark green.

Color in autumn.—Pale yellow.

Time of flowering.—April.

Fruit.—Nut [ament] oval.

Order of Study : The following order should be used in discussing the parts of flowers and trees:

1. Root.—Branching or single. 2. Trunk.—Bark and diameter. 3. Branches. 4. Leaves. 5. Wood. 6. Commercial value of wood. 7. Color of leaves. 8. Flowers. 9. Fruit. [*Vid.* "Object Lessons in Elementary Science," Macmillan & Company, page 68.] Impress upon the children the importance of planting trees. Ravages have been made in certain forest localities to satisfy the demand for timber. But tract upon tract is covered with young forests that are being rapidly set out by those who look into the future with a view to the consumer's demands. Not long ago one college alone planted over one million young trees. Years in the life of a nation are as naught in the making of epochs, and when the time comes for the

need of these trees, they will be ready. The forest primeval, however, is a thing of the past. As for the part the children might take in the preservation of the American forests, the rapidly growing popularity of Arbor day among the different states has done much to foster the proper feeling. Where it is found practicable, at a certain time in the spring, the teacher may have exercises around a sapling that may be planted near a schoolhouse or in the park, if the authorities permit. Much sentiment is manifested among our colleges in the planting of trees by the outgoing class at "Class Day."

Text : The text of the lesson contains a quotation from Longfellow's "Hiawatha"; elsewhere are found in the Second Reader two lessons based upon the same Indian legend. [*Vid.* Reader, pages 107, 109.] The teacher will find it advisable to correlate wherever it is possible to do so. Connect this lesson with that of Longfellow's "Hiawatha." This story has been set to music by Mr. Frederick Burton. Indian music is full of weirdness, and there is one particular song called "My Bark Canoe" which would please the children should

the teacher play it on the piano. It is simple in melody, and, as Mr. Burton has explained, the thought is simple, because an Indian in his poetry deals only with one thought that is devoid of all ornamentation.

Pronunciation Drill: The different vowel and consonant sounds should be drilled upon according to directions that indicate the proper positions of the organs of speech; and any defects detected in the pronunciation of these words by the pupils should be conscientiously overcome. In words of more than one syllable, care should be taken that the accent is placed in its proper position and that every component part of the word is given its full value. The phonetic exercises consist of the diphthongal sounds *ai* and *au*.

To the Teacher:

1. There is a sacredness in the calling of a teacher. The child she addresses is not a creature of yesterday, but has come up through ages of unfolding. She may meet him on the stairway; whether he is going up or down, her influence is to be exerted in determining his direction.

2. The public school is a fulcrum upon which the country may be lifted.

3. The teacher's power consists very much in her ability to create pictures in the minds of children. Word-painting is far more effective than painting upon canvas or the art of the sculptor.

LESSON XXXVI

Literary Cats: Looking under the word *cat* in the cumulative index of "St. Nicholas" Magazine, we find two columns of titles, and from these we suggest the following material:

An article by Helen M. Winslow treats of "Some Literary Cats" (Vol. XXVII, pages 923-926, August, 1900), in which the pets belonging to Sarah Orne Jewett, Mary E. Wilkins, Louise Chandler Moulton, and Edmund Clarence Stedman are described. Miss Jewett speaking of Polly, one of her cats, writes:

"Polly was a small cat to have so great a mind. She looked quite round and kittenish as she sat before the fire in a rare moment of leisure; but when she walked abroad, she stretched out long and thin, and held her head high over the grass as if she were treading a jungle. If she lashed her tail one turned out of her way instantly. If she crossed the room and gave you a look, you rose and opened the door for her. She made you know what she wanted as if she had the gift of speech. . . . You recognized her right to appear at night on your bed with one of her long-suffering kittens which she had

brought in out of the rain, out of a cellar window and up a lofty ladder, across a wet steep roof, down through a scuttle, into the garret and still down into warm shelter."

Among the many artists who have painted pictures of cats none is better known than J. J. Dolph, of whom W. Louis Frazer writes in "St. Nicholas" Magazine (October, 1891, Vol. XVIII, page 891). The very young kittens in Mr. Dolph's possession were fed by him in a peculiar way. Milk was placed by him on the end of a paint-brush and held to the kitten's mouth. Out would come the little pink tongue and lick it off as fast as it was supplied. Mr. Dolph said:

"As the kittens grow up they often show strange fancies and whims. . . . I will show you a sketch of a kitten who would sleep nowhere but on the top of my cabinet, and every night I had to take down my old Venetian glass and other curiosities to make a place for pussy. I had another whose marks and whose color were very beautiful. . . . Well, she got into the habit of taking a place on my knee at meal-times, and after a while would only feed from my fingers or eat bits put on the table especially for her. . . .

"A cat never forgives an injury as a dog will, and her pride once wounded she never forgives you. I tell you this because the animal-trainers use the whip a great deal; but, you see, you can not whip a cat. I found out that this one disliked to have her nose touched, and was fond of sugar. So when she did what I wished I gave her sugar,

and when she was obstinate I touched her nose gently with the tip of my finger. Then she would make a wry face and do as I told her, or else run under the chest."

In the opening chapter of "Our Cats and All About Them," by Harrison Weir, F.R.H.S., president of the National Cat Club (Houghton, Mifflin & Company, 1889), the author discusses the good of cat shows, resulting in kindness to animals and in the appreciation of their good points. He writes in various chapters as follows:

"Cats may roughly be divided into two classes: long-haired cats, of which the Russian, the Angora, the Persian, and Indian varieties are specimens; and the short-haired cats. . . .

"It is mostly found that a white cat, not only of the long, but of the short breed nearly always is deaf. Blue-eyed cats are nearly always deaf, altho there are exceptions to the rule. . . .

"The Angora cat comes from Angora in western Asia. The Angora cat has a small head, with not too long a nose, large, full eyes of a color in harmony with his fur, ears rather large than small and pointed with tuft of hair at the apex, . . . a very full flowing mane about the head and neck. . . . The colors are varied; but the black (which should have orange eyes, as should also the slate-colored) and the blues and the white are the most esteemed. . . . In manners and temper they are quiet, social, and docile.

"Persian cats differ from the Angora in that the tail is generally longer, like a table-brush, the hair being full and coarse. The head is larger; ears less pointed; the

eyes large, full, and round with a mild expression; the legs, feet, and toes well curved, with long hair; longer in body than the Angora. The colors vary from the black (which is difficult to obtain) with orange-colored eyes to light slate or blue, lilac, and purplish hues. This variety is less reliable as far as temper is concerned than the Angora. It has been known to bite and snap like a dog, and is much given to roaming. These cats attach themselves to places more than to persons, and are indifferent to those who feed and have the care of them.

“Among the other cats that may be mentioned are the tortoise-shell, tortoise-shell-and-white cats, brown tabby-cat, spotted tabbies, tabby-cat of Abyssinia, the short-haired white cat, the black cat, the blue cat, the black-and-white cat, the white-and-black cat, the Siamese cat, the Manx cat.

“At the office of the ‘London Advertiser’ they boast of a race of cats bred there for more than half a century. In Vienna four cats are employed by the town magistrates to catch mice on the premises of the municipality. A regular allowance is voted for their keep, and, after a limited period of active service, they are placed on the retired list with a comfortable pension.

“There are also a number of cats in the service of the United States Post-Office. These cats are distributed among the different offices to prevent the bags from being eaten by rats and mice, and the cost of providing for them is duly entered in the accounts. When a birth takes place, the local postmaster informs the superintendent of the facts, and obtains an addition to his rations.”

From the New York “Sun” the following paragraph reprinted in “St. Nicholas” Magazine for March, 1894, will be of interest:

“Some three hundred and odd cats are maintained by the United States government, the cost of their support being carried on as a regular item on the accounts of the post-office department. These cats are distributed among about fifty post-offices, and their duty is to keep rats and mice from eating and destroying canvas mail-sacks. Their work is of the utmost importance wherever large quantities of mail are collected, as for example at the New York Post-Office, where from two hundred to three hundred bags of mail matter are commonly stored in the basement. . . . Each of the postmasters in the larger cities is allowed from \$8 to \$40 a year for the keep of his feline staff, sending his estimate for ‘cat-meat’ to Washington at the beginning of each quarter.”

The Lesson : The illustration deals with the cats mentioned in the text, and should be supplemented by descriptions by the teacher. The text should form the basis for questions such as :

- (1) Have you ever seen an Angora cat ?
- (2) What is the difference between the tabby and the Angora as shown in the picture ?

Small sentences should be placed upon the blackboard and put in phonetic form after the difficult sounds have been carefully drilled upon. Words other than those given in the pronunciation drill should form the basis of careful study. If the lesson can not be finished in one day, more

time should be devoted to it, but it would be well so to map out the course that the Reader may be finished in one year's time

To the Teacher :

(1) The child's attention is something that should never be overstrained. Where the attention has been centered upon a particular object for some time, the teacher should change to something of a different character. This change is as full of good results as intermission of work would be.

(2) Do not feel that you have done with your pupils when you dismiss your school. Follow them with loving heart, and devote considerable time and thought each day to the carrying out of whatever course of study you have mapped out for them.

(3) Cultivate the *pet* idea for animals, and kindness toward all living creatures.

(4) Do not allow it to be said that children seem to go to school to train their memories and learn not to think.

(5) The child is a sponge that absorbs whatever comes in its way. Be sure that what he absorbs is good.

LESSON XXXVII

Weaving: From Kate Douglas Wiggin's book entitled "Froebel's Occupations" the following suggestions in regard to weaving may be of use to the teacher. We quote from a note on page 166:

"The art of plaiting, which carries in it the germ of the art of weaving, is of immemorable, undiscoverable antiquity. There can hardly have been a time when man did not weave together twigs or reeds to form a rude tent-covering—a primitive house" (Carey's "The Dawn of History").

Mrs. Wiggin writes:

"The simplest form of weaving is that employed in making the mats of uncivilized races. These are woven in the same way as the first mats in the kindergarten, using in place of paper the fibers of vegetable growths—the ends of these fibers being fastened to a stick to keep them in place. How the early savage races originated the art of weaving can not now be known, but it may have been from studying or imitating the habits of certain birds. Among the most noticeable of these are the weaver-birds of Africa, the name having reference to the remarkable way in which their hanging nests are constructed; these are woven in a very wonderful man-

ner of various vegetable substances, and are objects of great interest. One of the birds stays inside, the other outside, and the outside bird pushes a strip of grass through the strands, the bird within pushing it back in another place; and so they weave the strip out and in till the babies' cradle is finished."

Mrs. Wiggin emphasizes the fact that the reason weaving is so valuable an adjunct in teaching is because of the following points:

(1) Develops ambidexterity. (2) Cultivates patience and perseverance, thus having high moral value. (3) Teaches form. (4) Develops the creative faculty. (5) Cultivates color=taste.

If it is possible, take the children to a place where a spider is working and show the regular way in which the strands are spread from place to place. Mrs. Wiggin suggests that in every schoolroom one or more birds' nests be placed; it should be emphasized, however, that the wilful destruction of birds' nests is wrong. If a museum is near, let the children examine carefully the different nests there.

Stories: In connection with the story of weaving, the teacher will find elsewhere in this book the tale of "Arachne and the Spider." In simple language let her tell

the story of "Robert Bruce and the Spider," here given in condensation. [See "Fifty Famous Stories Retold," by James Baldwin (American Book Company).]

When Robert Bruce was King of Scotland, the King of England fought against him. Bruce showed his bravery in withstanding the King's onslaught. One day Bruce lay under a shed, tired and sick, and had almost lost hope of bringing peace to his land. And while he was thinking, the rain poured steadily down, and he saw a spider about to weave a web. He watched her as she tried to throw her first thread from one beam to another. Six times she tried and still she did not lose hope. Bruce became very much interested and began to ask himself whether she would give up; but no! the seventh time the strand was placed. This taught Bruce a lesson. Up he sprang, and gathering his men about him he fought bravely. And, so the legend runs, from that day no one could persuade any member of the Bruce family to hurt a spider.

The teacher will find many stories relating to the three Fates. This Grecian mythology is balanced in the North by the Norwegian or Scandinavian Norns, who were the northern Fates.

To the Teacher: It is well to show the child, either by illustration or by observation, the way in which weaving is done. If there is a factory within easy reach, take the children to see how the

work is done; explain what part weaving has played in the history of the different countries; how it is always one of the first industries a primitive race follows. Under a very strong magnifying-glass the weaving on an ordinary handkerchief may be very easily shown. If possible, obtain a microscope; placing a bit of linen or cotton under the lens, the strands will be seen in their true relations one to the other.

Phonetic Drill: In addition to the regular pronunciation drill, a review of the two diphthongal sounds *ai* and *au* is given.

Literature: "Handloom Weaving" is a manual by Mattie Phipp Todd (Rand, McNally & Company). It contains chapters on the primitive loom and the first steps in weaving; toward the end of the book will be found suggestions for songs, games, and stories, and also a bibliography.

Recite the following stanza to the children:

“Over one, under one,
Over one again,
Under one, over one,
Then we do the same.
Hi weavers! Ho weavers!
Come and weave with me!
You'll rarely find, go where you will,
A happier band than we.”

LESSON XXXVIII

Bible Paraphrase : See note for Lesson LXXXVI, page 174 of the Reader.

LESSON XXXIX

The owl, the swallow, the martin, and the woodpecker have been selected for this lesson, not because they all resemble each other or because their families are all closely related—they are not—but because they are useful to man, useful in an agricultural or economic sense. But as it is the aim to have each lesson in this book stand simply as suggestive to the teacher for further work in the same line, variety of treatment is given. Remember that with the teacher and not entirely with the text-book lies the responsibility of further stimulating the interest of a child.

Seek to grasp the unity of the lesson; remember that the basis of this lesson is usefulness, usefulness in destroying something that is harmful to the welfare of man. Birds have been ruthlessly killed because of the mistaken belief that they do harm, where a little careful examination on our part would prove that the harm done is quite surpassed by the good. "Weigh before you judge" should be impressed upon the pupils, and they should be encouraged in the desire to be kind and helpful to their bird neighbors.

Prepare an outline of the chief facts about the birds of the lesson. If the live bird can not be shown (outdoor work is strongly advised), or if the school is not in close proximity to a museum, the different points in the picture should be carefully noted and discussed in the class. Consult the bird bibliography given elsewhere in this Manual. Glance at the indexes and read about the birds that are being studied. After the six bird lessons have been completed, it might be well to transpose the treatments. Remember that one lesson, so called, may, in the hands of a conscientious and enthusiastic teacher, be the basis

for six or more lessons. A book can do no more than act as an incentive. Should it attempt more, it would overstep its bounds and encroach upon the field of a bird-book.

Woodpecker (Downy):

Family.—Woodpecker. *Dryobates pubescens*.

Range.—Eastern North America, Labrador to Florida.

Migration.—Resident.

Size.—6-7 inches; about the size of the English sparrow.

Food.—Animal 75 %, vegetable 25 %; caterpillars, beetles, bugs, grasshoppers, ants, spiders, moths, Virginia creeper, dogwood, strawberries.

Nest.—In decayed trees, apple-trees especially.

Eggs.—*Number*: 4 to 6. *Color*: White.

The material for the foregoing table as well as for those that follow is taken from "Bird Neighbors."

Impress upon the pupils that there are many woodpeckers besides the downy pictured in the cut; for example, the red-headed woodpecker, the hairy woodpecker, and the flicker.

Much literature has been written about these birds, so much that we have to limit ourselves to one, the one which is most useful (as opposed, so the teacher may emphasize, to the most harmful, the sapsucker) to man.

John Burroughs has written charmingly of woodpeckers in his "Winter Neighbors"; not about downy alone, but of the family in general. He tells how the woodpecker, in picking out his retreat in a tree, prefers the dry, brittle trunk; how, when he looks for food or is drumming for grubs, his drum is muffled. He tells how smart the sapsucker can be to know the days when the sap of a tree is at its best. All these points and more the teacher will find suggestive for classroom talks.

"The Woodpeckers," by Fanny Hardy Eckstorm (Houghton, Mifflin & Company), gives detailed descriptions. From it we quote the following points:

"Look for the woodpeckers in orchards and along the edges of the thickets, . . . wherever there are boring larvæ, beetles, ants, grasshoppers. . . . Sometimes on the fair bark of a smooth limb the woodpecker stops, listens, taps, and begins to drill [for a borer]. He works with haste and energy, laying open a deep hole. . . . The first step in building [a home] is to strike out a circle in the bark as large as the doorway is to be. . . . It is nearly always a perfect circle. . . . If the size and shape of the doorway suit him, the woodpecker scales off the bark inside his circle of holes and begins his hard work. . . . A week or more is consumed in digging the nest, which, among the flickers, is commonly from 10 to 18 inches deep. The hole usually runs in horizontally

for a few inches and then curves down, ending in a chamber large enough to make a comfortable nest for the mother and her babies. . . .”

Miss Eckstorm, in writing of the downy woodpecker, describes him as small, sociable, “and a little spotted black-and-white fellow,” and a most industrious bird. She calls him “the inspector of apple-trees.”

“Summer and winter he works on our orchards. At sunrise he begins, and he patrols the branches till sunset. He taps on the trunks to see whether he can hear any rascally borers inside. He inspects every tree carefully in a thorough and systematic way, beginning low down and following up with a peek into every crevice, and a tap upon every spot that looks suspicious. If he sees anything which ought not to be there, he removes it at once. . . . A beetle had just deposited her eggs here. Downy saw her and took not only the eggs but the beetle herself. . . . All the evidence he asks against any insect is to find him loafing about the premises. ‘I swallow him first, and find out afterwards whether he is guilty,’ says downy. . . .”

The sapsucker, which is the injurious bird of the family, is harmful to trees because he drills lines of holes around the trunk in rings or belts, some bands containing at least 800 holes, thus stopping the circulation of the sap and eventually killing the tree itself.

These are only a few points of interest

concerning the woodpeckers. Talk about the bill of the downy woodpecker, which does the work of a pickax; his claw; his tail, showing that it is used to lean upon; his tongue, which darts forth and spears the object of his search. Consult Neltje Blanchan's "Bird Neighbors" (Doubleday & McClure Company), and also "Bird Homes," by A. R. Dugmore (Doubleday & McClure Company), for material.

Barn-Swallow :

Family.—Swallow. *Chelidon erythrogaster*.

Range.—Throughout North America; winters in the tropics of both Americas.

Migration.—*Arrival*: About April 15. Summer resident. *Departure*: September.

Size.—6.5-7 inches; trifle longer than English sparrow.

Nest.—*Location*: Rafters or smaller supports inside or outside of barn. *Material*: Pellets of mud, straw, lining of hay and feathers.

Eggs.—*Number*: 4 to 6. *Color*: White with spots, dots, and blotches of reddish brown and purplish.

There are many birds belonging to this family, such as the barn-swallow, bank-swallow, cliff-swallow, tree-swallow, bough-winged swallow, and purple martin. These birds take their insect food on the wing [see "Bird Neighbors," page 9]; sexes are similar in color and form; bills are small;

mouths are large; long, pointed wings; tail more or less forked; plumage dull.

Purple Martin :

Family.—Swallow. *Progne subis*.

Range.—Peculiar to America; from arctic circle to South America.

Migration.—*Arrival*: About April 25. *Departure*: September.

Size.—7-8 inches; 2 or 3 inches smaller than the robin.

Food.—Wasps, beetles, and all kinds of injurious insects.

Nest.—*Location*: Bird-boxes or buildings. *Material*: Any convenient thing.

Eggs.—*Number*: 4 to 5. *Color*: White.

Screech-Owl :

Of the many owls, such as the Arcadian owl, the barn-owl, the barred owl, the burrowing owl, cat-owl, great gray owl, great horned owl, the hawk-owl, hoot-owl, the long-eared owl, the marsh-owl, the meadow-owl, the red owl, the screech-owl, the snowy owl, etc., the screech-owl has been taken because of his service to man. [*Vid.* "Birds That Hunt and Are Hunted," by Neltje Blanchan (Doubleday & McClure Company) for the following.]

Family.—Owl. *Megascops asio*.

Range.—Eastern North America.

Migration.—Resident.

Size.—8.50-9.50 inches.

Food.—Caterpillars, grasshoppers, small noxious mammals, English sparrows, worms, spiders, lizards, scorpions, fish.

Nest.—*Location*: Hollow tree. *Material*: Feathers, chips, rotten wood.

Eggs.—*Number*: 4 to 6, sometimes 8. *Color*: White.

Male and female: In the brownish-red phase, having upper-parts rusty red, finely streaked with blackish brown, and under-parts whitish, streaked with black, eyes yellow, legs and feet covered with short feathers, prominent ear-tufts. In the gray phase, the upper-parts ashen gray, streaked with black.

The screech-owl, writes Neltje Blanchan,

“. . . has a weird, melancholy, whistling tremolo. . . . It keeps closely concealed by day, often in a dense evergreen, or in its favorite hollow. . . . In the southern and central portions of its range, nesting begins in March; in the New England and northern parts some time between the middle of April and the first of May.”

Birds' Eggs and Birds' Nests:

This is an interesting subject for the teacher to discuss. Emphasis should be laid upon the importance of caring for birds' nests and protecting them against thoughtless destruction. Consult such books as “Bird Homes” (Doubleday & McClure

Company), by A. R. Dugmore, for a general description of nests and eggs; if possible, show actual examples or pictures of the eggs and nests; emphasize the manner in which the nest is built and fastened, of what it is made, etc.

The Usefulness of Birds to Man:

In an interesting lecture on the value of birds to the commonwealth, delivered by Mr. Frank M. Chapman, of the American Museum of Natural History, New York, Mr. Chapman emphasizes the service rendered by birds to the agriculturist and the little reward they get for their work. He quotes Professor Forbes, Director of the Illinois State Laboratory of Natural History, who writes:

“It is my opinion that about two-thirds of the food of birds consists of insects, and that this insect food will average, at the lowest reasonable estimate, twenty insects or insects' eggs per day for each individual of the two-thirds, giving a total for the year of 7,200 per acre, or about 250 billions for the state.”

The value of birds in destroying insects Mr. Chapman fully emphasizes in this little pamphlet. It may be procured from the Department of Agriculture at Washington and is well worth reading. From

it the following is taken about the birds of this lesson:

“Farmers are prone to look upon woodpeckers with suspicion. . . . Careful observers, however, have noticed that excepting a single species these birds rarely leave any important mark on a healthy tree; but that when a tree is affected by wood-boring larvæ, the insects are accurately located, dislodged, and devoured. . . . An examination of many stomachs of these two birds [the hairy woodpecker and the downy woodpecker] shows that from two-thirds to three-fourths of the food consists of insects, chiefly noxious. Wood-boring beetles, both adults and larvæ, are conspicuous. . . . Next in importance are the ants that live in decaying wood, all of which are sought by woodpeckers and eaten in great quantities. . . . It is thus evident that woodpeckers are great conservators of forests. . . .

“The vegetable food of woodpeckers is varied, but consists largely of small fruits and berries. The downy and hairy woodpeckers eat such fruits as dogwood, Virginia creeper, and others, with the seeds of poison-ivy, sumach, and a few other shrubs.” [This matter is quoted from Professor Beal's report.]

It is because the owl is so misunderstood that in many places large sums are paid yearly for his destruction. The owl, Mr. Chapman states, swallows his food entire, and it has been found by Dr. A. K. Fisher (see pages 29, 30, and 31 of this pamphlet) that the barn-owl (the monkey-faced owl) makes it a part of his special business to

kill house-mice as well as the mice which come to destroy the grain in the store-house.

Florence A. Merriam, in her "Birds of Village and Field" (Houghton, Mifflin & Company, 1898), says that Prof. F. E. S. Beal has calculated that the tree-sparrow alone destroys in Iowa 1,720,000 pounds of noxious weed-seeds every year; swallows, especially the barn-swallow, live largely upon flies which torment stock, while the martin is particularly noted for his unceasing and bitter warfare carried on against sparrows.

It is strongly advised that the following points be emphasized in the study of birds:

- (a) Common names.
- (b) Description:

{	Color.
	Size.
	Wings.
	Tail.
- (c) Habits.
- (d) Nest.
- (e) Eggs.
- (f) Song.
- (g) Position in bird-world.
- (h) Important characteristics.
- (i) Stories about birds.
- (j) Poems about birds.
- (k) Talks with pupils about birds, by questions.

Literature : Short poems on the different birds should be read, and, if simple enough, memorized. Tennyson has written a poem entitled "The Owl," one verse of which is as follows:

"When cats run home and light is come,
And dew is cold upon the ground,
And the far-off stream is dumb,
And the whirring sail goes round,
And the whirring sail goes round;
Alone and warming his five wits,
The white owl in the belfry sits."

This bird, being a symbol of wisdom, is used as the favorite of Minerva, who is the Greek goddess of wisdom. Obtain, if possible, the "Bird-Lore Chart," showing sixty-two representative members of the eighteen families of perching birds of northeastern America, with the statements of their range, number, and structural characteristics; photographed one-third the natural size from specimens in the American Museum of Natural History; the chart is prepared by Mr. Frank M. Chapman, and the price is 25 cents post-paid.

Pronunciation Drill : Remember that there are many ways of using these pronunciation drills: (1) by sounding the

vowel; (2) by sounding the consonant; (3) by grouping all of those words containing the same sound under the same heading; (4) diphthongal sounds; (5) phonetic sentences to be read from phonetic spelling; (6) short sentences to be placed upon the board in phonetic spelling; (7) the card game of phonetics.

To the Teacher: Mr. Chapman, in his "Bird Life" (D. Appleton & Company), has an appendix for the use of the teacher. From this many valuable suggestions may be gained. He says: "As we become familiar with birds and learn to recognize them, the question of identity will no longer remain a bar to our better acquaintance, and our interest in them will deepen. We shall begin to inquire into the questions of form and habit, color, migration, song, nesting, etc. . . ."

LESSON XL

The Lesson : This lesson deals with expansion and material for the purpose of classroom experiments, and apparatus is suggested in the illustration accompanying the lesson itself. Because a gas-flame or an oil-flame must, of necessity, be used, the teacher will have to be careful to impress the children with the fact that while around the gas-flame they must be as quiet as possible, since the jarring of the table or of the Bunsen burner might upset the flame, and a fire be the result. Apart from the iron ring and the iron ball attached to a chain, there is nothing more to be procured for the experiment than the Bunsen burner itself. These lessons dealing with the simple facts in science should be given even at such an early age as eight to ten. To see an iron ball grow larger after being heated is something that will interest the children even tho the principle underlying the experiment may not be easily grasped at the moment.

From Ganot's "Physics" (William Wood & Company) the following suggestions are taken:

"Nearly all bodies expand by the expansion of heat. As a general rule, gases are the most expansible, then liquids, and lastly solids. . . .

"In order to show the expansion of liquids, a large glass bulb provided with a capillary stem is used. If the bulb and a part of the stem contain some colored liquid, the liquid rapidly rises in the stem when the heat is applied. . . ." (page 287).

From the expansion of liquids the teacher may pass to the explanation of the thermometer, showing one. Place, as was suggested in the Manual for the First Reader, two glasses, one with cold water and the other with lukewarm water, on the table; put the thermometer in the first glass and let the children notice how the mercury falls; immediately after placing it in the glass of cold water, place it in the glass of lukewarm water, and show the children how the mercury rises.

Take a thermometer, and hold the mercury-bulb in the hand, so as to cut it off from the temperature of the air; the pupils will see the mercury rise. The teacher may explain that the rise in temperature is due to the heat of the body. With peo-

ple in normal health this temperature is constant, being ninety-eight and a half degrees Fahrenheit; when above ninety-eight and a half degrees the person is said to be feverish.

To the Teacher: David Salmon, in his "Art of Teaching" (Longmans, Green & Company), has the following to say concerning science:

"Every physical science begins with the careful and intelligent observation of facts, and then proceeds to classify and generalize; hence the pursuit of it gives a keenness to the senses and a vigor to the reasoning powers which must be of immense service in any department of human activity."

Huxley writes in his "Science and Education":

"I advocate natural-history knowledge . . . because it would lead us to seek the beauties of natural objects instead of trusting to chance to force them on our attention. To a person uninstructed in natural history, his country or seaside stroll is a walk through a gallery filled with wonderful works of art, nine-tenths of which have their faces turned to the wall. Teach him something of natural history, and you place in his hands a catalogue of those which are worth turning round."

Pronunciation Drill: The phonetic drill given in this lesson deals first with the *oi* sound, directions being given for the

proper positions of the organs of speech. The teacher should from time to time select the difficult words of the text, and place them upon the blackboard with their phonetic spellings, so that they may be properly pronounced. Under the heading "Reading," in the "Art of Teaching" above mentioned, many suggestions are given as to the alphabet, word-building, enunciation and pronunciation, with lessons on the vowel and consonant sounds. In regard to the latter some instructive sentences containing two similar consonant sounds, coming together, and to be pronounced separately, are quoted. For example:

Bob burned his fingers.

She gave us a good dinner.

The roof fell with a crash.

Jack caught two birds.

This suggestion is very valuable if properly used.

LESSONS XLI, XLVIII,
XLIX

The Lessons: The first lesson deals with what the Indian boy and girl do during the day. The second and third lessons are based on legends in Longfellow's "Hiawatha." Ask questions concerning the details; for example: "Who was Mondamin?" The answer should be that he is the symbol of autumn and the resurrection, showing that Mondamin dies only to rise again each September. For Indian life it would be well to consult "Little Folk of Many Lands," by Louise Jordan Miln (Charles Scribner's Sons), upon which Lesson XLI is based. The poetry of the Indian language may well be indicated by the names of the months. Talk to the children about the Indian papoose, the wigwam, how the Indian hunts, how he goes to war, the Indian dances, the Indian peace pipe, Indian superstitions, the Indian march, the Indian games, of the early set-

tlers and their treaties with the Indians — especially the treaty made by William Penn — of the Indians in early colonial history, of General Custer and the Indians. [*Vid.* “Boots and Saddles,” by Mrs. Custer.]

It was suggested in the Manual for the First Reader that a thorough description of Indian life be given to the children, basing the description, wherever it was possible, on material drawn from Longfellow's poem. If the pupils have studied the First Reader for this lesson outlined in the Teachers' Manual, review the notes. [*Vid.* First Reader, Lessons LXII-LXV; Manual, pages 194-200.] If they have not studied the First Reader, then treat the notes in that Teachers' Manual as new matter. Many interesting books have been written dealing with Indian life and giving Indian legends. Mr. Deming, who has drawn the pictures for the three Indian stories in this Reader, has written, in conjunction with his wife, a book of stories dealing with the red folks (Frederick A. Stokes Company); and from Mary Catherine Judd's book, “Wigwam Stories” (Ginn & Company), we suggest the following, strongly advising the teacher to procure

the book, as it gives much valuable material for classroom use:

“The Indians in the West tell this story [about clay dishes and how they were made]:

“A squaw left her two boys to care for her papoose while she worked. She was hidden in the wickiup or tent, and did not see what the boys were doing until the papoose began to cry.

“The squaw found them all down by the river. They could not stir, for their feet were stuck fast in the wet clay of the river bank. She got her three children back to the wickiup. They laughed at their footprints in the clay, for they had left deep holes everywhere.

“The band of Indians left their camp before the sun was over their heads. The squaw, with her papoose and her boys, was soon far away from the river bank; but during the hot summer, which was soon upon them, the same band returned to the river they had left.

“The two little Indian boys went down to the clay bank where they had stuck fast. No rain had fallen since they had been there, and they found their footprints in the clay. These had dried until the mud was like stone.

“The squaw came and looked at the holes. She took some clay in her hands and wet it in the river; then she shaped it like the hollow stone she used for cooking. She dried the clay in the sun, and it was soon hard.

“An old chief saw the clay dishes and told the other squaws to make them, but the clay dishes would not hold water and broke very easily.

“A squaw put some ashes and fire in her dish one day. She wanted to save the fire, for it was hard to get. The hot coals baked the dish, and it would not break. It held water; then the Indians knew how to make their clay dishes in the right way.”

Another book that will prove of interest is "The Legends of the Iroquois," by William W. Canfield (A. Wessels Company).

Phonetics : The teacher should prepare exercises for these lessons consistent with the ideas suggested in previous pages.

LESSON XLII

The Lesson : There are stories, poems, legends—every imaginable kind of material dealing with winter, snow, ice, frost, and all of those characteristics that make winter so welcome to boys and girls. The land of snow and ice gives an opportunity to discuss the Eskimo children and their habits. For the teacher's own benefit there is a story of Klondike life, entitled "A Daughter of the Snows," by Jack London, which would give her some idea of the atmosphere of the place.

Consult Lesson XLVI of the Standard First Reader [Manual for First Reader, page 139], and repeat, as therein suggested, the explanation of ice floating upon the

water, thus opening a way to a talk about icebergs. Therein also may be found many suggestions for poems and songs. Consult likewise the following books for material:

- (1) Cumulative Index of "St. Nicholas" Magazine.
- (2) Lovejoy's "Nature in Verse."
- (3) "St. Nicholas Song Book."
- (4) Wilson's "Nature Study."
- (5) "All the Year Round."

LESSON XLIII

Daffodil and Daisy : The two poems given in this lesson deal only with two flowers, but the purpose in introducing these poems is to cause the child, at an early age, to become familiar with some of those masterpieces in literature which are easily within reach of the child's comprehension. Glancing through the poems we see no word that is not easily within the range of a child's vocabulary. There may be those words that are difficult to pronounce, such as *continuous*, *sprightly*, *jocund*, *rallied*, *dune*, words which, after being pronounced and explained, will readily be

understood by the children. Tell something of the life of Wordsworth; what a great lover of nature he was, and how his poems are almost autobiographical in character.

To the Teacher: In studying this lesson one of the chief objects is to make the child feel the spirit of the coming spring. We have advocated more than once the use of the masterpieces of literature wherever possible; and the fact, for instance, that the two poems here used deal simply with two flowers is no reason that the conversation or classroom talk should be based on these two flowers alone. Other subjects that might be talked about are: (*a*) clouds, kinds of; (*b*) vales; (*c*) lakes; (*d*) Milky Way; (*e*) the bobolink; (*f*) June [see Lowell's poem, "The Vision of Sir Launfal"—"Oh! what is so rare as a day in June?"].

In the "Books and Reading" department of "St. Nicholas" Magazine (Vol. XXVII), Mr. Tudor Jenks writes:

"Young readers are often afraid of the very best books. They think there must be something forbidding in writings that have been looked up to for many years, and decide to wait until they are wiser before reading the great authors. Now, Hazlitt says: 'The difference

between a tall and a short man is only a few inches, whereas they are both several feet high. So a wise or learned man knows many things of which the vulgar are ignorant, but there is a still greater number of things the knowledge of which they share in common with him.' A great author will say some things we may not understand, but he will tell us a great many more truths we can share with him. Few writers of real eminence are obscure in writing, and where there is obscurity it is not often worth while to labor long to get at the author's meaning. Let your motto in reading be 'Nothing is too good for me.' "

Diphthongal Drill: The diphthongal drill contains a review of the three diphthongal sounds **ai**, **au**, and **ei**. The phonetic sentence is put in diagram form, and should be reproduced upon the board in the same manner; silent letters are separated by a parenthesis.

LESSON XLIV

No more interesting spot can be found than the bear-pit of a zoological garden, where the black and white shaggy creatures sit before the bars, and anxiously contemplate the inquisitive groups of on-lookers. If crumbs of sweet things are thrown to them, out will come shaggy paws, and sweep up the crumbs better than any broom would do.

The Polar Bear: From "American Animals," by Stone and Cram (Doubleday, Page & Company), we condense the following account of several kinds of bears:

The polar bear is 7 feet long and nearly all white; the fleshy parts of nose and lips black. Range, around the polar regions and Labrador. He goes under the ice-crusted places, where he watches for seals. No matter how cold the sea, he will approach a seal under water. Fish is also another part of his food. During the winter the bear with her cub remains in the snow-house for warmth until the coming of spring enlarges the snow-room.

The Black Bear :

This is also called a cinnamon bear. He is entirely black, with a brownish tinge, somewhat chestnut. Range, in the forest regions of North America. When compelled to fight he is very brave, but otherwise he is timid. Blueberries, roots, and bugs form his delicate repast. "Like all bears, they [black bears] are passionately fond of honey, and very clever at finding bee-trees. When a bear has discovered a bee-tree, he courageously attacks it with his teeth and claws, endeavoring to enlarge the opening sufficiently to enable him to reach the honey. But the stings of enraged insects about his nose and mouth cause him to stop frequently. If the bear is at work at the foot of the tree he can roll on the ground in order to get rid of his tormentors when the pain becomes too severe. . . ."

The Grizzly Bear :

About 6 feet 6 inches long, with shaggy fur, of a brownish-yellow tinge. His range is from the Rocky Mountains of Utah to Alaska. He is the roughest and most ferocious bear of the world. His strength is prodigious, and nowadays his big game consists of horses and cattle, and so he is disliked by the ranchmen. It is this bear that scratches the bark of a tree to let other bears know of his presence in the neighborhood.

References : The teacher is referred to the cumulative index of "St. Nicholas" Magazine, in which the following titles are to be found :

"Adventures of Grizzly"—vol. 2; pages 359-363.

"Baby Sylvester" (B. Harte)—1; 506-513.

“The Bear That Had a Bank Account” (H. H. Boyesen) — 15; 106-111.

“An Encounter with a Polar Bear” — 8; 341-345.

“Letter from Bruin Polar Bear to Tommy” — 21; 567-569.

The teacher will find much interesting material in Ernest Thompson Seton's “Biography of a Grizzly.”

Phonetics: The teacher should take those words of the text that are difficult of pronunciation, and place them in phonetic spelling — such words as *polar* and *grizzly*; sentences in phonetic spelling should also be written upon the board.

LESSON XLV

Review: This review lesson deals with the vowels grouped according to long, short, and variant sounds. The teacher should see that the words are carefully and distinctly pronounced; she will have had occasion to find out the weak points in the pronunciation of particular words by certain pupils. Have the words written on

the blackboard in ordinary spelling, and sounded by the pupils. If there is any difficulty, the teacher should give as many side-lights as possible to aid in the recognition of these sounds; for example: suppose the child for the moment does not recollect that the *g* sound in *fast* is a variant. Perhaps if the word *grass*, which contains the same sound, were given, the pupil would recognize the sound and the symbol that represents it. Then the teacher might say that the same sound is in the word *fast*. The diphthongal sounds at the end of the review should be drilled upon in the same manner.

Spelling: It is not the province of a Reader to have graded spelling lessons; those words found in the appendix to the Reader, under the heading "Vocabulary," might, however, be grouped in regular graded lessons.

To the Teacher:

- (1) We must train will-power, patience, endurance.
- (2) Says Bulwer, "Books suggest thoughts, thoughts become motives, motives prompt to action."

LESSON XLVI

Longfellow: Consult some standard works dealing with the poet's boyhood. The standard biography of Longfellow is edited by Samuel Longfellow. A shorter volume is to be found in "The American Men of Letters Series" (Houghton, Mifflin & Company), written by Thomas Wentworth Higginson.

A few facts dealing with Longfellow's life as here given may not be amiss:

1807—February 27, born in Portland, Maine. Ancestry goes back to John Alden of the Plymouth Colony.

1825—Graduates from Bowdoin with Nathaniel Hawthorne. Goes abroad the same year.

1829—Returns to America and receives professorship of Modern Languages at Bowdoin College.

1831—Marries Mary Potter.

1835—Publishes "Outre-Mer."

1835—Professor of Modern Languages at

Harvard, and goes to Europe. His wife dies the same year at Rotterdam.

1836—Occupies Craigie House at Cambridge.

1843—Third voyage to Europe: same year marries Frances Appleton.

In quick succession his poems are published: 1839, "Voices of the Night"; 1841, "Ballads and Other Poems"; 1842, "Poem on Slavery"; 1843, "The Spanish Student"; 1847, "Evangeline"; 1851, "The Golden Legend." He wrote also: 1839, "Hyperion" (prose); 1849, "Kavanagh" (prose).

1854—Gives up all work save literary work, and is succeeded in the professorship by James Russell Lowell.

1859—Degree of LL.D. at Harvard.

1868—Degree of D.C.L. from Oxford and Cambridge.

1882—March 24, dies at Cambridge.

From Samuel Longfellow's "Life" we quote the following: Longfellow's mother writes in 1807, "I think you will like my little Henry W.; he is an active little rogue and wishes for nothing so much as singing and dancing."

During the war of 1812, we hear from Longfellow's aunt: "Our little Henry is

ready to march; he had his tin gun prepared and his head powdered a week ago."

In January, 1814, we find this little letter from Longfellow:

"Dear Papa:

"Ann wants a little Bible like little Betsey's. Will you please buy her one, if you can find any in Boston? I have been to school all the week, and got only seven marks. I shall have a billet on Monday. I wish you to buy me a drum."

With all his liveliness, he disliked all loud noises and rude excitement. There is a family tradition of his having on some Fourth of July privately begged the maid to put cotton in his ears to deaden the sound of the cannon.

In the library he found within easy reach Shakespeare, Milton, Pope, Goldsmith, "The Spectator," "The Lives of the Poets," "Robinson Crusoe," "The Arabian Nights." Longfellow himself has said:

"Every reader has his first book; I mean to say, one book among all others which in early youth fascinates his imagination, and at once excites and satisfies the desires of his mind. To me, this first book was the 'Sketch-Book' of Washington Irving. I was a schoolboy when it was published, and read each succeeding number with ever-increasing wonder and delight, spellbound by its pleasant humor, its melancholy tenderness, its atmosphere of reverie—nay, even by its gray-brown covers,

the shaded letters of its titles, and the fair clear type, which seemed an outward symbol of its style. How many delightful books the same author has given us! . . . Yet still the charm of the 'Sketch-Book' remains unbroken; the old fascination remains about it; and whenever I open its pages, I open also that mysterious door which leads back into the haunted chambers of youth."

* * *

"Out of my childhood," wrote Mr. Longfellow in later years, "rises in my memory the recollection of many things, rather as poetic impressions than as prosaic facts. Such are the damp mornings of early spring, with the loud crowing of cocks and the cooing of pigeons on roofs of barns. Very distinct in connection with these are the indefinite longings incident to childhood; feelings of wonder and loneliness which I could not interpret and scarcely then took cognizance of. But they have remained in my mind."

Here is a description of Longfellow:

"He was a very handsome boy. Retiring, without being reserved, there was a frankness about him that won you at once. He looked you square in the face. His eyes were full of expression, and it seemed as though you could look down into them as into a clear spring. . . . He had no relish for rude sports; but loved to bathe in a little creek on the border of Deering's Oaks; and would tramp through the woods at times with a gun, but this was mostly through the influence of others; he loved much better to lie under a tree and read. . . . If he was a thoughtful, he certainly was not a melancholy boy; and the minor key to which so much of his verse is attuned, and that tinge of sadness his countenance wore in later years, were due to that first great sorrow that came upon him, which was chiseled still deeper by subsequent trials."

LESSON XLVII

From "Æsop's Fables" (Henry Altemus) we quote the following legend:

Story About the Oak :

"An oak which stood on the side of a brook was torn up by the roots in a storm, and as the wind took it down the stream its boughs caught on some reeds which grew on the bank.

"'How strange it is,' said the oak, 'that such a slight and frail thing as a reed should face the blast, while my proud front, which, till now, has stood like an Alp, is torn down root and branch!'

"A reed which caught the sound of these words said in soft tones, 'If I may be free with you, I think the cause of it lies in your pride. . . . You are stiff and hard, and trust in your own strength, while we yield and bow to the rough blast.'"

It is worse to break than to bend.

[See page 134 of the Reader for Tennyson's poem on "The Oak."]

In "St. Nicholas" Magazine Julian Hawthorne (vol. 6, p. 198 ct-333 cl) has written a story called "Rumpty=Dudget's Tower," a fairy-tale, full of fascination, in which the creeping ivy plays an important part.

The Lesson: This lesson is condensed from Eugene Field's "A Little Book of Profitable Tales" (Charles Scribner's Sons). It has been more or less changed, but the spirit of the whole has been retained while simplifying the construction and the words. The ivy should be described by the teacher and ivy-leaves shown. A diagram should be drawn upon the board, showing how the ivy creeps along the ground and up the sides of walls. It would be a good idea to call the pupils' attention to the shape and character of the poison-oak so that they may be able to avoid it. The ivy being a vine, see related subject in Reader; also the lesson on the oak.

Phonetics: The phonetic drill consists of a review of the diphthongal *au* sound.

LESSON L

Sentences: The pronunciation drills cover Lessons XLVIII and XLIX. The words should be used in sentences so that the teacher will see that the *meaning* of each is thoroughly understood; for instance:
(a) He found *gooseberries* upon a bush.
(b) The *sturgeon* was in the water.

Ask the children questions such as the following: (1) What was the color of the plumage on Mondamin? (2) Who was Minnehaha? (3) Have you ever seen a grasshopper? (4) What grows from a caterpillar? (5) Do you know what is meant by silence? (6) Have you ever heard a pigeon coo? (7) Have you ever seen a cornfield with the tassels waving in the breeze?

The sentences given below the pronunciation drill are to be used in the same way as in previous word-guessing lessons. [See First Reader, page 12.]

Double-Consonant Drill: (1) **nn**

—Can no one help me?

(2) **mm**—Come, *Mary*, and read this lesson.

(3) **ww**—The cow *wandered* across the field.

(4) **tt**—Let *to-morrow* take care of itself, attend to *to-day*.

To the Teacher:

(1) Every teacher should have in her the spirit that was in **Him** who had compassion on the multitude.

(2) See that you have a free hand to choose your books and your methods, or be like Lord Kitchener, who, when told to reorganize the army, asked, "Shall I have a free hand?" and the answer at first being no, he replied, "Then the place is not for me."

LESSON LI

The Lesson: The teacher will find farther on, in the notes dealing with this lesson, suggestions for legends based upon the swan, crow, house-wren, and bobolink, and will also be given a list of poems which may either be read to the pupils or used as memory exercises. Note the following

general description of the birds taken from the usual sources: "Bird Neighbors," "Bird Life," "Birds of Village and Field," and "Birds That Hunt and Are Hunted."

Swan (Whistling):

Family.—Duck. *Olor columbianus*.

Range.—Nesting around Arctic Ocean.

Migration.—*Arrival*: April. *Departure*: October.

Size.—A little under 5 feet.

Food.—Mollusks, worms, roots.

Nest.—Sticks and aquatic plants; lined with down.

Eggs.—*Number*: 2 to 6. *Color*: Grayish, 4 by 6 inches.

[See story of Lohengrin.]

These birds are noted for the bare skin between the eye and bill, which, with other differences of size, etc., distinguishes them from geese. They migrate in V-shaped flocks like geese, and often utter loud trumpeting notes. Plumage of both sexes alike. Male and female, entire plumage white. Usually a yellow spot between the eyes and nostrils; bills, legs, and feet black. [There are black swans, too.]

Neltje Blanchan, who gives this information in "Birds That Hunt and Are Hunted," says that no more beautiful sight can be had than that of a flock of swans in the course of their migration; it

looks like a perfect regatta with a wing-spread often of sixty-seven feet, moving like yachts. Swans are said to fly at the rate of 100 miles per hour. The poets, the writer claims, are the ones who are responsible for the idea that the swans can chant; these birds are indeed among the worst of our singers. The theory of evolution accounts for the long neck of the swan. [See Mr. Chapman's "Bird Life" for discussion of this evolutionary theory.]

American Crow :

Family.—Crow. *Corvus americanus*.

Range.—North America, from Canada to Mexico.

Migration.—March and October; summer and winter resident.

Size.—16 to 17½ inches.

Food.—Grasshoppers, caterpillars, moths, mice, rabbits, corn.

Nest.—*Location*: Trees, bushes; many feet from ground. *Material*: Bulky, consisting of sticks, grape-vine, cedar-bark, sod, horsehair, moss, and grass.

Eggs.—*Number*: 4 to 6. *Color*: Pale bluish green, or nearly white, with light-brown markings.

Male: Glossy black with violet reflections. Wings appearing saw-toothed when spread; are almost equal to the tail in length. The female is similar to the male in size, etc., only less brilliant and black.

To the farmer, Neltje Blanchan claims, "the crow is an unmitigated nuisance"; but she points to the fact that in the springtime the crow follows the plow, eating larvæ, field-mice, and worms, and thus becoming serviceable to a certain degree. However, young fledglings, ducks, turkeys, and chicks are taken up and devoured by the crow. Birds' eggs are crushed and eaten on the spot. Birds' nests are destroyed, besides which the crow spreads destruction in cornfields. New York State has offered a certain price for every crow's head.

The American crow, claims Florence A. Merriam in her book "Birds of Village and Fields," roosts in great numbers. "One of the winter roosts is on historic ground at Arlington, the old home of General Lee. This roost covers fifteen acres of land, and all winter, from the middle of the afternoon till twilight, the birds may be seen from Washington crossing over the Potomac to the heights beyond." Miss Merriam claims that a scarecrow is of very little use in frightening a crow when he is intent on getting corn. But the way to protect a crop, she says, is to soak some corn

in tar and scatter it over the field, protecting at least eight or ten acres by a few quarts of corn thus saturated. The crow eats grasshoppers, tent-caterpillars, May beetles and other pests, and the gipsy-moth, besides which he kills field-mice, rabbits, and other harmful rodents.

House-Wren :

Family.—Wren. *Troglodytes aedon*.

Range.—North America, from Labrador to the Gulf.

Migration.—*Arrival* : April. *Departure* : October.
Summer resident.

Size.—4½ to 5 inches; smaller than the sparrow.

Food.—98% animal; caterpillars, beetles, bugs, grasshoppers, ants, spiders, moths, worms.

Nest.—*Location* : In the hole of a tree and in the niches in a wall, behind shutters, rafters, etc. [See A. R. Dugmore's "Bird Homes."] *Material* : Twigs, hay, feathers; lined with feathers.

Eggs.—*Number* : 4 to 7. *Color* : Whitish ground, reddish and pinkish brown or chocolate markings.

The wrens are small birds more or less barred, with darkest brown above and much lighter below; tails erect; wings small for short flight. Vivacious, busy, excitable, easily displeased, quick to take alarm. Most of the species have scolding notes in addition to their lyrical, gushing song, that seems much too powerful a

performance for a diminutive bird. All are insectivorous. [*Vid.* "Bird Neighbors," page 13.] The male and female are similar in coloring and form: the upper parts being cinnamon-brown, with a deeper shade on neck and head; the back has obscure dusky bars. Wings and tail are finely barred. The under parts are whitish with grayish-brown wash.

Mr. Chapman, in his "Bird Life," says that repose for the wren is out of the question: "As well expect to catch a weasel asleep as to find a wren at rest. . . . He is ever hopping, flitting, bobbing, or bowing, pausing only long enough to give voice to his feelings in fidgety, scolding notes or an effervescing musical trill, with the force of which his small body trembles."

The Bobolink :

Family.—Blackbird. *Dolichonyx oryzivorus*.

Range.—North America, from eastern coast to prairies.

Migration.—*Arrival* : May. Summer resident. *Departure* : August to October.

Size.—7 inches; trifle larger than English sparrow.

Food.—Rice, caterpillars, beetles, grasshoppers, ants, seed; 37% animal, 63% vegetable.

Nest.—*Location* : On the ground and meadows. *Material* : Grass and leaves; lined with grass.

Eggs.—*Number* : 3 to 6. *Color* : Varying from white with chocolate markings to grayish buff with brown,

In spring the male bobolink is black, with a light=yellow patch on the upper part of neck, also on edges of wings and on tail=feathers; middle of back streaked with pale buff; tail=feathers with pointed tips. [*Vid.* "Bird Neighbors," page 61.] In autumn the plumage of the male resembles that of the female, which is dull yellow=brown, with light and dark dashes on back, wings, and tail; two decided dark stripes on top of head.

Neltje Blanchan writes that perhaps none of our birds has so fitted into song and story as the bobolink. "Unlike a good child, who should be seen and not heard, he is heard more frequently than seen. . . . The bobolink never soars like the lark, . . . but generally sings on the wing. . . . He also sings perched upon the fence or tuft of grass. He is one of the greatest poseurs among the birds." [*Vid.* poem, "Robert of Lincoln."]

The Birds in Song : These birds are grouped to show their importance in the range of literature. The swan has figured throughout many medieval legends and is the basis of the story of Lohengrin, which is told elsewhere in the Second Reader.

[*Vid.* page 159.] To show that children between the ages of eight and ten would appreciate the music of "Lohengrin," here is the experience of a teacher at the Pratt Institute (Brooklyn). One morning, just before the hour for opening, the teacher sat down at the piano ready to play the little march that the children usually came in by. Unconsciously she began playing over certain parts of the "Lohengrin Wedding-March," and a little fellow ran up to her and said, "I know that piece." The teacher asked him what it was; he said, "I don't know the name of it, but they played it at my sister's wedding, and I think it is very pretty." Then, in response to the requests of the children, the wedding-march was played over again, and it was unanimously decided to substitute this march every morning for the simple arrangement that had formerly been used. Then the teacher suggested that she tell the children the story of Lohengrin, and so it went on until the legend was thoroughly familiar to the children.

The classics in art, simply because they are called classics, should not necessarily be beyond the grasp of a child. A thing

that is classical may at the same time be simple. In a conversation with the opera barytone Mr. David Bispham, he touched upon the subject of music for children. He said that in the schools he was greatly in favor of having a graded course of songs by the very best composers, rather than the so-called kindergarten songs, which very often are as lifeless in character as the so-called kindergarten stories. He would have a select number of songs carefully graded, from the simple to the complex, consisting of pieces by Brahms, Schumann, Schubert, and Franz.

Swan Maidens: In "The Science of Fairy Tales," by E. S. Hartland (Charles Scribner's Sons), there is a chapter dealing with Swan Maidens. (Consult pages 255-332, if the book is procurable.] In many fairy-tales dealing with the Swan Maidens, the latter are disguised as birds, but the character of the bird is not described. In some legends, the maid is referred to as a sea-fowl; in others, simply as a bird, preferably a dove. We quote the following stories as given by Mr. Hartland (here condensed):

In a Finnish tale a dead father appears in a dream to his three sons, telling them to watch by the sea at night, singly. Two of the boys are frightened by the darkness; the third, the youngest and disliked, watched until the dawn; and three geese came, stripped off their feathers, and plunged into the water to bathe. These geese were suddenly changed into three maidens. Of course, the youth fell in love with one of them. Elsewhere the birds are doves instead of geese, which is by far the more poetic version.

Another tale coming from Bohemia tells of a boy whom a witch led to a spring near an old elm-tree, where flew three white doves, none other than three enchanted princesses.

The Crow: Consult Chaucer's "Canterbury Tales" ("Why the Crow Is Black"), Phœbe Cary's "Crow's Children," and the old ballad "The Twa Corbies."

The Bobolink:

- "Daisies, clover, buttercup,
 Redtop, trefoil, meadowsweet,
 Ecstatic wing, soaring up,
 Then gliding down to grassy seat.
- "Sunshine, laughter, mad desires,
 May day, June day, lucid skies,
 All reckless things that love inspires,
 The gladdest bird that sings and flies.
- "Meadows, orchards, bending sprays,
 Rushes, lilies, billowy wheat,
 Song and frolic fill his days,
 A feathered rondeau all complete.

“Pink bloom, gold bloom, fleabane white,
Dewdrop, raindrop, cooling shade,
Bubbling throat and hovering flight,
And jubilant heart as e'er was made.”

[*Vid.* Miss Merriam's "Birds of Village and Stream"; also Chapman's "Bird Life."]

The Wren: For stories about the wren, see Miss Merriam's "Birds of Village and Stream" (pages 45-48).

LESSON LII

This lesson deals with contraction in contrast with Lesson XL, in which expansion was treated at some length. The apparatus for this experiment is very simple: a pan of ice, an iron ring, and an iron ball that will just *not* slip through the ring. In the morning, when the class has assembled, and it has been shown that the ball will not go through the ring, the ball should be packed in the ice and allowed to stay for several hours, after which it should be taken out, when it will be seen that it will just slip through the iron ring. The

reason for this is as obvious as the reason for the expansion of the iron ball shown in a previous lesson. The particles of iron composing the ball, instead of being driven farther away one from the other, are brought closer together. The teacher should have everything in readiness for this experiment at the opening of the school-day, since it takes some time for the ball to become thoroughly chilled.

Pronunciation Drill: The phonetic drill consists of a number of words containing diphthongal sounds and other simple vowel sounds. These words, written in their ordinary spelling, should be sounded by the pupils, and should be placed upon the blackboard in phonetic spelling. The phonetic sentence is to be used as before suggested.

To the Teacher: In the chapter on Science in "An Experiment in Education" (Harper & Brothers), by Mary R. Alling-Aber, the writer has the following to say:

"Do not bring nature to the child, but take the child to nature; and when there let him keep his hands off until he has exhausted the capacities of eye and ear. . . . Within an hour's railway journey of many a large city in our land still remain natural features in almost undisturbed, primeval grandeur; and we will venture to say

that in every such city enough is wasted each year in municipal carelessness to send the children of every school to these places for at least one day. . . . Nature's changes should be noted and followed with care to avoid conclusions until the cycle has been completed at least once: the migrations of birds; the formation of buds in the autumn and their expansion and further development in the spring; changes in the coats and colors of animals; the varying lengths of the life periods of plants and animals; the variations produced by differing opportunities as to soil, moisture, sunlight, exposure, etc. . . .

"The spirit which is found in the best postgraduate departments of the largest universities should be the spirit of work in all grades from the kindergarten up: a direct simplicity in dealing with phenomena, an avoidance of misplaced sentiment, a candid exposure of error and of the limitations of present knowledge, a genuine humility, and a reverent courage."

LESSON LIII

The Poems: Two stanzas of a poem by James Whitcomb Riley are here taken from his "Rhymes of Childhood." They contain a moral significance that in the schoolroom should be emphasized by the teacher. There is no cloud, however dark, that has not a silvery lining. In other

words, it is much better to laugh than to be sighing. And, truly, experience will show that Mrs. Ella Wheeler Wilcox's philosophy in her poem "Laugh and the World Laughs with You" is true, since if we weep, undoubtedly we shall weep alone. Mankind is only too ready to join in fun; where sorrow and grief are concerned we come to a more individual feeling; so that Mr. Riley's poem, where he advises us to keep on the sunny side of life, is one that will form the basis for many stories of contentment in the many spheres of life.

Topics to Be Discussed: Examining the text, we find that the following subjects might be emphasized: (a) robin; (b) peach-tree; (c) bluebird; (d) pear-tree; (e) moral significance of the second stanza.

Poems: Frank L. Stanton, in his book of poems, "Up from Georgia," shows that in the ordinary life he can treat of things in an optimistic way. For instance, see his poem entitled "Pretty Good World," from which we quote the following stanza:

"Pretty good world with its hopes and its fears—
 Pretty good world, good people!
Sun twinkles through the rain of its tears—
 Pretty good world, good people!

Better be here in the pathway you know—
Where the thorn's in the garden, where sweet
 roses grow,
Than to rest where you feel not the fall of the
 snow—
 Pretty good world, good people."

Another poem is entitled "Tollable Well,"
from which we have quoted the following
stanza:

" 'Course he had trouble an' sorrow
 (Come to us all fer a spell),
 But, seein' a brighter to-morrow,
 He allus' felt 'tollable well.' "

Another poem is called "Just Whistle,"
one stanza of which is as follows:

"When times are bad an' folks are sad,
 An' gloomy day by day,
 Jest try your best at lookin' glad
 An' whistle 'em away."

LESSON LIV

We have had occasion to call attention to the importance of studying the lives of great men. History has been defined by Carlyle as the biography of great men. In the history of a nation, and especially of the United States, there are certain men who stand out as representing the spirit of certain epochs. Such a man was Abraham Lincoln, who came at a time when the nation was distraught within itself concerning the questions of slavery and state rights. Raised from the lowliest position to the highest that a nation could give him, Lincoln won his place through the sheer force of a personality that surmounted every obstacle. Of the life of Abraham Lincoln much has been written. John Hay, the present Secretary of State, was Lincoln's private secretary, and in conjunction with Nicolay he has published an authentic life of the great President. See Miss Tarbell's "Life of Lincoln," published in "McClure's Magazine"; likewise articles

in the "Century" and "St. Nicholas" Magazines. From the last-named publication we have taken the following suggestions:

In the department entitled "Books and Reading," Mr. Tudor Jenks, in talking of Lincoln's books used when he was a boy, writes:

"There was no need for him to consult a list of the one hundred best books. His earliest possession consisted of less than one-half dozen volumes, a pioneer's library. . . ."

(a) The Bible.

(b) "Pilgrim's Progress."

(c) "Æsop's Fables."

(d) United States History.

(e) Weem's "Life of Washington."

"From the Bible, 'Pilgrim's Progress,' and 'Æsop's Fables,' the boy Lincoln learned the power and beauty of plain English words. . . . When, therefore, in later life he wished to be sure he understood any matter, it became his custom to translate it into words such as a child can understand."

The lesson given in the Standard Second Reader is based upon Col. Henry Watter-son's speech, delivered before the Lincoln Club of Chicago, February 12, 1895; the lesson was forwarded to Mr. Watterson, and approved in the form in which it is now published. [Read the speech, published in "Modern Eloquence."]

Chronological :

- 1809 — February 12, Lincoln is born
1825 — Becomes a ferryman on the Ohio, receiving \$6
per month as salary.
1830 — Moves to Illinois.
1832 — Captain in Black Hawk Indian War.
1832 — Runs for Assemblyman. Is defeated.
1832 — Studies law.
1833 — Postmaster.
1834 — Is elected to Legislature.
1836 — Is reelected.
1837 — Is admitted to the bar.
1839 — Settles in Springfield.
1839 — Debate with Douglas.
1842 — Marries Miss Mary Todd.
1846 — Is elected to Congress.
1854 — Takes stand against slavery.
1860 — Is nominated for President of the United States,
and is elected.
1861 — Inauguration.
1861 — April 12, bombardment of Fort Sumter.
1862 — Sept. 22, emancipation proclamation.
1864 — Lincoln is reelected President.
1865 — Lee's surrender.
1865 — April 4, Lincoln is shot by Booth.
1865 — April 5, Lincoln dies.

This material, taken from "Holy-Days and Holidays" (Funk & Wagnalls Company), gives some of the chief events of this great man's life. The teacher is, in simple language, to explain the importance of Lincoln in the history of the United States; and especially to bring out that

strong element, friendship to the South, so well explained in Mr. Watterson's speech. Lincoln was a just man, he was a kind man, he was a God-fearing man; in all his work he was prompted by a religious fervor. It is interesting to read what another martyred president thought of Abraham Lincoln. In an address made in 1895 William McKinley said:

“What were the traits of character which made him leader and master, without a rival, in the greatest crisis in our history? What gave him such mighty power? Lincoln had sublime faith in the people. He walked with and among them. He recognized the importance and power of an enlightened public sentiment, and was guided by it. Even mid the vicissitudes of war, he concealed little from public review and inspection. In all he did he invited rather than evaded examination and criticism. He submitted his plans and purposes, as far as practicable, to public consideration, with perfect frankness and sincerity. . . . He had that happy peculiar habit, which few public men have attained, of looking away from the deceptive and misleading influences about him—and none are more deceptive than those of public life in our capitals—straight to the hearts of the people. He could not be deceived by the self-interested host of eager counselors who sought to enforce their own particular views upon him as the voice of the country. He chose to determine for himself what the people were thinking about and wanting him to do; and no man ever lived who was a more accurate judge of their opinions and wishes.”

LESSON LV

Bible Paraphrase: See note for Lesson LXXXVI, page 174 of the Reader.

LESSON LVI

The full-page color illustration of "Children of All Nations" was introduced for the purpose (a) of teaching the children how to tell time and how to make a paste-board clock; (b) of giving them an opportunity of learning something of the characteristics of the children of other nations.

The Clock: Take a piece of cardboard and cut a square 12 by 12 inches. Upon one side of this, with a pair of compasses, draw a circle, with a radius equal to the distance between the center of the square and the center of one of the sides. Indicate the different hour-points, and from

another piece of cardboard cut two hands similar to the hands of a clock. Put these on the face of the clock and clamp with a piece of wire so they may be moved. The teacher may base definite exercises on the telling of time; for instance, ask the following questions: "What time do you go to school?" "What time do you have your lunch?" "What time do you go home in the afternoon?" "What time do you go to bed?"

Addition: The teacher may also base lessons on addition, following the *questioning* idea: "It is now fifteen minutes past three; what time will it be in an hour?" "It is now twenty-eight minutes past five; what time will it be in twenty-five minutes?" "It is now eight o'clock in the morning; what time will it be in fifteen minutes?"

Subtraction: "It is now twelve o'clock; what time was it five hours ago?" A good way of teaching children addition and subtraction is as follows: Say the sun rises in the east and sinks in the west; those places east of us see the sun before we do, and those places west of us see the sun after we have seen it go down. People

living in New York are west of London and east of San Francisco; there is about five hours' difference between the time in each place as compared with our time. Suppose it is 3 P. M. in New York: London, being east of New York, saw the sun rise five hours earlier than we did. Therefore the time must be five hours later than our time. The people in San Francisco saw the sun rise five hours later than we did. Therefore the San Francisco time must be earlier than ours.

Illustration: The teacher will be able to base a number of interesting talks upon the details brought out in the picture. It is impossible, in the limits of a book of this kind, to give material dealing with all the children in the picture. The accompanying diagram explains the colored picture in the Reader. Beginning with the little girl whose head is between Father Time's beard and the numeral I, the children, in regular order, represent the following nations: (*a*) America and England; (*b*) France; (*c*) Germany; (*d*) Holland; (*e*) Italy; (*f*) China; (*g*) Philippine Islands; (*h*) Japan; (*i*) Russia; (*j*) Greenland (Es-kimo); (*k*) America (piccaninny); (*l*)

America (Indian). By consulting the cumulative index of "St. Nicholas" Magazine and also "Little Folk of Many Lands," by Miln (Charles Scribner's Sons), much detail may be procured. Let the children talk



about the details of the picture—the kites, the games, etc. Read to the children interesting anecdotes about the different nations. If practicable, the flags of all nations might also be introduced and given to the children while they are marching in the morning

into the classroom, or during the actual progress of the lesson. It was suggested, in the Manual for the First Reader, that the child be taught the different flag-signals.

Sentences: Altho there is no text accompanying the illustration, the teacher might place upon the blackboard sentences based upon the different figures in the picture:

1. Japan is the land of fans.
2. Have you ever seen a Chinaman eat rice with chop-sticks?
3. Piccaninnies eat watermelons.
4. French children know how to dance, etc.

Questions: The teacher should ask questions concerning the details of the picture:

1. What are some of the differences between Chinese and Japanese children?
2. How does an Eskimo dress?
3. How do you know that this is a Japanese child?

Related Topics: Consult the lessons on Holland (see Reader, page 137). Consult poem "In Tokyo" (see Reader, page 127). Consult lesson on Indian life (see Reader, page 93). Consult lessons on polar bear (see Reader, page 99).

LESSON LVII

Game: Full directions for playing the game forming this lesson have been given under the diagram on page 122 of the Reader.

Exercises: The diagram admits of a number of uses. The addition, as far as the game is concerned, goes only as far as *forty-one*. However, it might be carried much further. Take the circle surrounding the word *Home*:

$$40 + 39 = 79$$

$$40 + 38 = 78$$

$$38 + 39 = 77$$

The teacher might ask the pupils to add together the different figures in the inner circle. This would form a line consisting of ten figures.

The same will hold good in the subtraction. The following might be placed upon the board:

$$26 - 11 = 15$$

$$22 - 5 = 17$$

$$18 - 1 = 17$$

$$40 - 39 = 1$$

LESSON LVIII

The teacher, in dealing with the story by Lewis Carroll, which is here introduced, should treat the lesson purely as a story, altho certain nature details might be introduced, based upon material taken from nature books heretofore mentioned. The story is supposed to be more or less fanciful, the usual vein of the author of "Alice in Wonderland." It is introduced here to make the children interested in Lewis Carroll's work. Read to the children parts of "Alice in Wonderland" from day to day until the book is finished. Keep the children interested in the various little poems scattered throughout the book.

The teacher will find of service the little book, "Through the Looking-Glass," and also of a character similar to that of the

two books mentioned above the Rev. Charles Kingsley's "The Water Babies," from which we quote the following:

"When all the world is young, lad,
And all the trees are green ;
And every goose a swan, lad,
And every lass a queen ;
Then hey for boot and horse, lad,
And round the world away ;
Young blood must have its course, lad,
And every dog his day.

"When all the world is old, lad,
And all the trees are brown ;
And all the sport is stale, lad,
And all the wheels run down ;
Creep home, and take your place there,
The spent and maimed among :
God grant you find one face there
You loved when all was young !"

It is doubtful whether children will get the true significance of the parable introduced into "The Water Babies" by Dr. Kingsley. However, they will get enough of the *story* to amuse them, and the book as a whole is a child *classic*.

LESSON LIX

The Elephant: The teacher will find it advantageous to start with a discussion of the picture in which three elephants are to be seen. There is hardly a child that does not know the elephant. Of all animals this one has characteristics most easily remembered by the children—long ears, a long trunk, tremendous body, small tail, a thick skin, and ivory tusks.

Consult books of reference concerning details of elephant life. An interesting book upon the subject is that by Rudyard Kipling's father, John Lockwood Kipling (Macmillan & Company, 1891), entitled "Beast and Man in India." In this book there is a chapter dealing with the elephant and his position in Indian life. From this book the following is condensed:

Next after the cow, the elephant seems to be of all beasts the Hindu favorite—a favorite of the poet as well as the artist. A raja will spend four-fifths of his income

in caring for him. The elephant is a symbol of power. Dressing him for parade is long and tiresome. He is docile but mischievous. "The elephant is made for display as a mountain range for the sunset effect." But the beast "is much less steady than a brick wall." The great baby is washed; he plays like a child with the water. Then he is painted: forehead, trunk, and ears—made perfect works of art. When dressed he plays all sorts of tricks to disarrange himself and soil his finery, "just as it is the natural inclination of the smartly dressed boy to go straightway and make mud pies." It is not easy to haul an elephant up a ship's side and down into the hold. Mr. Kipling tells a story of how, long ago, some elephants swaying a vessel liked the motion and swayed more and more until there was great danger of the vessel's capsizing.

The Indian government realizes the good qualities of the elephant, but considers him "a decidedly stupid animal." This statement is not true, says Mr. Kipling; "simplicity of character were a better word than stupidity; an elephant can be taught many things."

As to strength, the elephant has great carrying power, his normal load being eight hundred pounds—equivalent to that borne by eight ponies, five pack-mules, or more than three camels. With this load, the elephant travels well, being valuable in a jungle country.

In Indian government service, writes Mr. Kipling, only female elephants are used, from twenty to thirty years of age. Male animals are preferred by princes on account of their greater size. An elephant at twenty-five years of age may be compared to a human being of eighteen. He attains his full strength and weight at about thirty-five, and has been known to live one hundred and twenty years.

He is useful in forest-clearing, and has been yoked to the plow. He can carry a log supported by tusk and trunk. He is rather expensive to keep. Rice, wheaten flour cakes, fodder, stalks, and leaves of various kinds are given him, and a cheerful drink after fatigue and cold is rum, brandy, or arrack, mixed with ginger, cloves, and pepper. But his caretaker often steals most of it. A rope or chain fastened to a stake is sufficient restraint, fixed in such a way

as to allow of his turning around. Outside of India the elephant is disappearing, but steps are being taken to keep him in certain other localities.

A book the teacher might consult to advantage would be "The Ivory King," a popular history of the elephant and his allies, by Charles Frederick Holder (Charles Scribner's Sons, 1886). From it the following is condensed:

Wild elephants usually travel in herds of thirty or fifty [Chapter II, "Habits and Ways of Elephants"]. A band of one hundred elephants will consume eighty thousand pounds of fodder a day. They can perform most remarkable feats for clumsy beasts. They are sure-footed and can climb very steep hills and are very careful going down.

The sense of smell of an elephant is so delicate that a tame elephant will recognize the presence of a wild one three miles away, and by his actions inform the mahout. In elephant language a squeaking noise means pleasure; a shrill and a low, hoarse mumble means rage and war.

Elephants rest in the middle of the night. They are early risers, their hour being

about three in the morning; they take short naps during the day. The African elephants use their enormous ears as fans during hot weather.

The elephants are fond of water and they spout it around with their trunks. They are great swimmers, despite their size; some having swum for six consecutive hours without touching the bottom. Male elephants are about nine to ten feet high. Females are usually smaller.

Elephants are easily alarmed, especially by smaller animals.

A baby elephant at birth weighs about two hundred and forty pounds.

To give some idea of the scope of "The Ivory King," note the following chapter headings:

"Natural History of the Elephant"; "Habits and Ways of Elephants"; "The Intelligence of the Elephants"; "The Mammoth"; "Three- and Four-Tusked Elephants"; "Tusks"; "How Asiatic Elephants Are Confined Alive"; "Asiatic Elephants in Captivity"; "Hunting the Asiatic Elephants"; "Baby Elephants"; "Tuskers at Work"; "Ivory."

See Kipling's "Jungle Books" (The Cen-

tury Company, 1894), "Toomai of the Elephants." This one of Mr. Rudyard Kipling's inimitable stories is well known and would interest the children; with apologies to the author, an outline of the story is herewith reproduced:

Among the many elephants that played an important part in the service of the Indian government, there was one named Kala Nag. His driver was Big Toomai, whose family for years had been among the greatest of elephant-drivers, and great was the family boast that the grandfather of little Toomai had at one time seen the elephants dance, a sight not given to many mortal men. Now, it happened that one evening as the elephants were being driven into their pens, little Toomai helped one of the men fasten securely an unruly elephant, and great was the fear of Little Toomai's father; to the sahib the wonderful feat of Little Toomai was told, and he spoke to Little Toomai, who, in front of the great white man, was held aloft upon the trunk of Kala Nag. And he bade the little fellow take care, else some day he might be trampled under foot. "And am I never to go near the elephants?" asked Little Toomai. "Yes," said the white man, "after you have seen the elephants dance in the forest." Every one laughed at this, for no one among them had ever seen the wonderful dance in the forest.

But Toomai, as children will, thought of what the white sahib had said, and long into the night he pondered on how best he might see this wondrous thing. Near him stood Kala Nag, and overhead the stars shone out of the blackness of the night. Suddenly, far off, there sounded a note, and Kala Nag raised his ears and listened; then he moved forward silently among the sleeping

elephants, and after him ran Little Toomai. "Take me with you!" he cried. And out came the big trunk, and around the little body it curled, and off the two went into the forest, brushing against the branches and soon coming up with other elephants traveling in the same direction. At last Toomai saw an open space, where from the back of Kala Nag he looked down upon a sea of elephants close together. Kala Nag seemed to be the leader of the band. What he did the others did; when he swayed from side to side the others swayed from side to side, and when he stamped upon the ground the others stamped too, until Little Toomai thought that the earth would shake to pieces and that he would fall from the back of Kala Nag. What could it mean? Perhaps—and here Little Toomai shivered in the cold night air—perhaps this was the elephants' dance! Then a weakness came over him, and he wished himself at home; but there was no way out of it now; he clung to the elephant's back and peered into the sea before him. For two hours there was a stamping, calling, blowing, and shuffling of clumsy feet, and at the first sign of dawn, as if by magic, the elephants disappeared. Then Kala Nag took Little Toomai back, not to his home, but to the home of the white sahib. Here Little Toomai, exhausted and—oh, so sleepy!—fell before the sahib in a faint; and when he was made comfortable in the sahib's great coat, men gathered around and heard of the wonderful things that had befallen him during the night. And they marveled much. At Little Toomai's home the great men praised him and predicted for him a great future when he, too, would be large enough to be famed among the elephant-drivers. "Call him, my people," said a sage among them, "not 'Little Toomai' at present, nor 'Big Toomai' when he is grown, 'but forever and forever let his fame be spread as 'Toomai of the Elephants.'"

Pronunciation Drill: The teacher should carefully examine the text and also pay particular attention to the pronunciation of the words by the children during the reading of the text. If there are any words that are slurred, or any great defects in speech, the teacher should spend time in correcting such errors. We have often heard children pronounce the word "elephant" "efelant," in which the consonants *f* and *l* or *ph* and *l* were transposed. This should be guarded against. These may be only slips of the tongue, but they are hard to break in after-years.

Concerning the reading of the lesson, this should always be done *by* the children, *after* the teacher has discussed the details and read the lesson over to the pupil. If the teacher sees that the pupils are becoming tired, she should read to them one of Kipling's stories.

LESSON LX

The Lesson : This lesson consists of a poem, which should be memorized by the pupils. Herein has been followed the word-guessing idea of the First Reader, where some of the words of the different verse-lines have been represented by simple outline drawings, in place of the words themselves. For example, in the order in which the illustrations in the text occur, the pupil will see the following : *eyes, shoe, chair, bed, knife, fork, spoon, feet, sandals, pillow, box, stoves, tray, chopsticks, dolls, maids*. In guessing these words, if the pupils find any difficulty in recognizing the objects, the teacher should throw as many side-lights as possible, helping the children to come to a correct solution.

The lesson relates enough characteristics of the little Japanese maid to form sufficient talk during the hour's study. A pleasing effect might be obtained, during

any school entertainment, with Japanese fans and lanterns, which are inexpensive, and could be used by a certain number of the children in a Japanese drill. Gilbert and Sullivan's operetta "The Mikado" contains some pleasing and simple little songs which might be used to advantage in the classroom; such songs, for instance, as "Three Little Maids from School," etc. In fact, the teacher might first read the story of the opera over and later tell it to the children in simple language, playing the different airs upon the piano.

LESSON LXI

Review: The teacher will find two divisions: (1) four diphthongal sounds in which special attention should be paid to the *iū* sound; (2) a pairing of the long and the short vowels of the fundamental sounds of the Scientific Alphabet. Throughout the directions for holding the organs of speech, it will be seen that there is no difference made in the positions of the organs while

making a long sound and their positions while producing the corresponding short sound; so that if a drill upon the short sound of *a* as in *sofa* be given, it would be much clearer to the pupils, and much more fruitful of results, to have them produce the *ā* sound as in *arm* immediately thereafter. In this way the logical arrangement of the vowel sounds of the Scientific Alphabet will become apparent to the teacher. Drill the child in the making of those symbols which represent particular sounds; for example, the symbol for the *ū* sound in *churn*. Ask the question: "What words do you remember that contain this sound?" Put this in the form of a game, so that the child who guesses the greatest number of these words shall win the game.

Drawing Lesson: In the First Reader a short lesson based on the straight line was given. In this lesson it will be seen that by means of a straight line boxes of different shapes may be constructed. The teacher must be careful in dealing with *perspective*. The object in lessons such as these is to accustom the child to a free and easy movement of the hand, and also to train him in accuracy. Teach the child to

tell how far away certain objects are from him, how high a chair is, how long a book is, etc. Train the eye to see things in their proper value. As observation in nature studies train the eye to detect small things that go unobserved by the casual observer, so drawing should not only cultivate taste as to form, but should also train the eye in actually observing the forms and proportions of surrounding objects.

LESSON LXII

Bible Paraphrase: See note on Lesson LXXXVI, page 174 of the Reader.

LESSON LXIII

Poem: "April Showers." The stanzas are to be memorized by the children, and the difficult words are to be placed with their phonetic spellings upon the blackboard by the teacher.

LESSON LXIV

The Oak: In the study of this tree, adhere to some definite plan in giving descriptions of the different parts. There are two colored pictures of the oak-tree in the Reader, one showing it in spring and the other in autumn.

The shape of the oak-leaves does not alter with the change in color. Call attention to the peculiar appearance of the branches coming from the main trunk; how graceful the tree is where the roots have a snakelike character as they cling to the rocks when they are partially exposed. Call attention to the leaves, the height, the color of the bark, the color of the wood, etc. From Harriet Keeler's "Our Native Trees," pages 323 and 324, we condense the following descriptions and tables concerning oak-trees:

The bark of every species is heavily charged with tannic acid. The trees are of great strength. Most oaks proba-

bly require a century to reach maturity. They rarely bear acorns until twenty years of age, and increase in productiveness as they grow older.

WHITE OAK

Name.—Oak. *Quercus alba*.

Family.—Oak.

Species.—White.

Height.—80 to 100 feet.

Trunk diameter.—3 to 4 feet.

Distribution.—Is tolerant of many soils, reaching its greatest height in Valley of Ohio.

Bark.—Light gray, varying to dark gray and white.

Color of wood.—Light brown.

Description of wood.—Strong, tough, heavy, fine-grained, durable, beautiful.

Use of wood.—Construction, ship-building, cooperage, agricultural implements, interior finish of houses, cabinet-making.

Shape of leaf.—5 to 9 inches long, 3 to 4 inches wide; obovate or oblong; 7- to 9-lobed.

Color of leaf.—Bright yellow-green.

Color of leaf in autumn.—Deep red.

Time of flowering.—May.

Fruit.—Acorns (nuts).

It is the most valuable as well as the most stately and beautiful of our oaks. The white oak, however, is passing, and unless replanted will ere long disappear. Its value for timber causes it to have for its enemy the ax. Before the nuts have time to germinate, on account of their sweetness most of them are eaten by animals.

RED OAK

Name.—Oak. *Quercus rubra*.

Family.—Oak.

Species.—Red.

Height.—70 to 140 feet.

Distribution.—From Maine to Georgia and Tennessee, westward to Minnesota and Kansas.

Bark.—Dark gray, brown tinged with red; with broad, thin, rounded ridges; scaly.

Color of wood.—Pale reddish brown.

Description of wood.—Heavy, hard, strong, coarse-grained.

Use of wood.—Furniture, construction, and interior of houses.

Shape of leaf.—7 to 9 inches long, 4 to 6 inches broad, terminating with long, bristle-pointed teeth; oblong ovate; 7- to 9-lobed.

Color of leaf.—Dark green and smooth; sometimes shiny above.

Color of leaf in autumn.—Rich red, sometimes brown.

Time of flowering.—May.

Fruit.—Acorns (nuts).

Stories: The inhabitants of Greece and early Britain worshiped the oak-tree. Its beauty and majesty were the glory of the forests.

Its fruit, the acorn, was an important article of food to the inhabitants of early Europe, and is still sold for that purpose in parts of Asia Minor and Spain. In our country the bear, the raccoon, the squirrel, the wood-pigeon, and the swine fatten on acorns.

The bark of many species of the oak is used for dyeing and tanning. The bark of the cork-oak gives us cork. The wood of the oak is noted for its strength, hardness, and durability.

There are still standing in England oaks known to be from a thousand to twelve hundred years old.

“In an old oak in Boscobel forest, King Charles II. remained successfully concealed for a day after the battle of Worcester, from which circumstance the oak became a Stuart emblem. The accession of Charles was long celebrated as a holiday under the name of ‘Royal Oak Day.’ . . . The Yule log . . . burned at each of the great feasts of the Druids was of oak.”

The Round Table of King Arthur, still shown at Winchester and said to be genuine, is a cross-section of an oak-tree.

The Greeks believed the oak to be the first tree that grew on earth, and the Greeks, Romans, and Germans considered it sacred to the king of the gods.

A chaplet of oak-leaves was the highest honor that could be given a Roman soldier.

The next most famous oak to the Charter Oak is the one near Fishkill-on-the-Hudson, near which it is said Washington used to mount his horse.

Pronunciation Drill: This consists in part of a diphthongal drill on **ai** and **au**. The poem by Tennyson given at the end of the lesson might be used to advantage by the teacher for phonetic exercises. Take the difficult words in turn and have them sounded and spelled phonetically; place the phonetic spelling upon the blackboard. This will not take very much time and will immediately show how well the pupils are retaining the impressions left by the phonetic drills of former lessons. It should be seen that the symbols representing the sounds are remembered by the pupils. The teacher who is at all familiar with the Nibelungenlied cycle will recollect the scene in "Die Walküre" where Sigmund draws the sword from the side of an ash-tree. In the original Icelandic saga this is an oak-tree. Let the teacher tell the story of how the sword was drawn from the heart of this ancient wood.

LESSON LXV

Phonetics: Altho no phonetics are given, let the teacher take from the text such words as *Athena*, *Arachne*, *queen*, *loom*, *Greece*, *surpass*, *spider-web*, etc., and, after having the vowels and consonants sounded by the pupils, write the words with their phonetic spellings upon the board. If there is any uncertainty in regard to obscure sounds, turn to the vocabulary in the Appendix, where a complete list of words is given, accompanied by phonetic spellings.

The Story of Daphne: The story of Daphne, as outlined in another lesson (Reader, page 145), deals with a common characteristic throughout Grecian mythology, the characters of which are often changed into inanimate objects, such as trees, flowers, stones, etc. In connection with this lesson, the teacher might tell the story of Narcissus, which in brief runs as follows [consult Bulfinch's "Age of Fable"]:

Once there was a woodland nymph named Echo, who was loved by Pan, a satyr. His body was shaped like a goat, and his face was not beautiful to look upon. So Echo would have none of him, and one day she came across a youth who was most beautiful and whose name was Narcissus. "Tell me," said Echo, going up to him, "who is the most beautiful person in the world." "What do you mean?" said Narcissus. "I mean," answered Echo, "what is your name?" "Am I so beautiful?" said Narcissus. Then Echo told him what she thought of him, and it made him very curious to see himself, for in those days there were no mirrors. He said: "One gets tired of being called beautiful by the girl nymphs, and could I but see myself once, I would wed the girl who showed me myself." Thereupon Echo led him to a stream and bade him get down upon his knees and look therein. And so he did, and knelt there in wonder at himself. Soon Echo grew tired of waiting and reminded him of his promise; but he would have none of her, crying out: "Indeed, I am most beautiful to look upon! I love myself madly, and I would you were far away!" So Echo left him.

This is how Narcissus fell in love with himself, and for nights and days he sat by the stream gazing at his own image, and he pined in love of himself until he pined away; and when his friends came to look for him they found only a blooming narcissus, into which his soul had turned. As for Echo, bowed with grief, she too faded gradually away until she became only a voice. There are many places where she can even now be heard. [See "Gods and Heroes," by Francillon.]

LESSON LXVI

The Lesson : This lesson is based on Mary Mapes Dodge's "Hans Brinker, or the Silver Skates." Mrs. Dodge is the editor of the popular juvenile monthly "St. Nicholas," and her stories are among the best of fiction for children. Among these stories may be mentioned "Donald and Dorothy" and "The Mystery in a Mansion."

The teacher may use to advantage the interesting material to be found in the following chapters: Chapter II, "Holland"; Chapter III, "The Silver Skates"; Chapter IX, "The Festival of St. Nicholas"; Chapter XIX, "On the Canal."

We would advise the teacher to read the book through and mark those passages descriptive of Holland and the people of that country. Talk to the children about *skating*; about the *dikes* and the *windmills* of Holland; about the peculiar wooden shoes that the children wear, and the life of

the Queen of Holland. In fact, this small country has many interesting features that could be framed into stories. Do not get too far away from the child's understanding; describe things in such a way that he will realize the difference between life in Holland and life in America.

Pronunciation Drill: The teacher should remember that this drill is given only for the purpose of pronunciation; that the phonetic spelling is not the one to be used unless the teacher is an advocate of the spelling-reform movement. Among the philologists there is a movement to adopt a common form of phonetics to be used by all dictionaries, for the purpose of reaching a universal pronunciation among English-speaking peoples. The Scientific Alphabet happily illustrates its simplicity in the fact that, as has been said before, there is but one symbol to represent one sound and only one sound for each symbol. A fault with most systems lies in the fact that one diacritical mark may represent a number of distinct sounds. This the Scientific Alphabet avoids, and hence was chosen by the editors of the Standard Dictionary and of the Standard Reader Series as the

simplest and the best method of indicating correct pronunciation. The teacher is advised to study, from time to time, the rules underlying this system. Only by a thorough knowledge of the Scientific Alphabet will she be able to make clear to the ordinary child the important principles of phonetics. The teacher should write to the publishers of the Standard Reader Series and ask for "The Scientific Alphabet of the English Language," a little pamphlet of sixty-four pages, in which these principles are clearly set forth. She will there obtain descriptive material on the Scientific Alphabet which will prove suggestive.

LESSON LXVII

The Lesson: This is a continuation of Lesson XXIV, dealing with spectrum colors. The rainbow is defined in Ganot's "Physics" as follows:

"The rainbow is a luminous phenomenon which appears in the clouds opposite the sun when they are resolved into rain. It consists of seven concentric arcs,

presenting successively the colors of the solar spectrum. Sometimes only a single bow is perceived, but there are usually two : a lower one, the colors of which are very bright ; and an external or secondary one, which is paler, and in which the order of the colors is reversed. In the interior rainbow the red is the highest color ; in the other rainbow the violet is. It is seldom that three bows are seen ; theoretically a greater number may exist, but their colors become so faint that they can not be perceived.

“The phenomenon of the rainbow is produced by decomposition of the white light of the sun when it passes into the drops, and by its reflection from their inside face. In fact, the same phenomenon is witnessed in dewdrops and in jets of water—in short, wherever sunlight passes into drops of water under a certain angle.

“The appearance and the extent of the rainbow depend on the position of the observer, and on the height of the sun above the horizon ; hence only some of the rays refracted by the raindrops, and reflected in their concavity to the eye of the spectator, are adapted to produce the phenomenon. Those which do so are called effective rays.”

Phonetics : These consist of six words for pronunciation drill and a review of some of the vowel sounds of the Scientific Alphabet. There is also given a phonetic sentence, which should be analyzed as heretofore suggested.

LESSON LXVIII

The Lesson: The stanzas should be committed to memory by the pupils, after having been read to them by the teacher. They should also be read from the phonetic text. The teacher is to explain what is necessary and to base a nature lesson upon *violets* and *honeysuckle*.

LESSON LXIX

Bible Paraphrase: See note on Lesson LXXXVI, page 174 of the Reader.

LESSON LXX

The following is condensed from the "Columbian Cyclopaedia":

Paper: Fabric composed usually of vegetable fibers minutely divided and recombined in thin sheets, either by simply drying in contact, or with the addition of size or other adhesive material.

Probably the earliest kind of paper was the papyrus (pa-pai'-rus) of the Egyptians. The stems of the papyrus-plant, often eight or ten feet long, are soft and green, externally like the common rush; and the interior consists of a compact cellular tissue of tiff. In preparing papyrus for use as a writing-material, a section of the stem was sliced longitudinally with a sharp knife or some similar instrument, the strips from the center being the broadest and the most valuable. The strips were then laid on a board side by side and another layer of strips was laid across them at right angles. The whole was then moistened with water, which dissolved the glutinous matter in the papyrus, and the sheet was first pressed, then dried in the sun. Any roughness was leveled by polishing with ivory or a smooth shell.

It is known that the Chinese were acquainted with the art of making paper from pulp artificially prepared as early as the commencement of the Christian era.

The stock used in the manufacture of fine paper was commonly linen rags, but sundry other materials have

been employed for a long time [for example, asbestos, bagging or sacking, banana-fiber, bark, bean-stalks, sugar-cane, coconut-fiber, cotton, flax, weeds, fur, grass, hay, hemp, hops, jute, leather, leaves, husk, moss, old writing-paper, roots, sawdust, silk, thistles, wood, wool, etc.].

The process of paper-making as outlined in the cyclopedia is as follows:

1. The rags, bark, or fibers are reduced with water to fine, smooth pulp; in the paper-mills the boiling is done in strong lye, cleaning the rags and softening the fiber.

2. This product is then put into a washing-machine half filled with water, where the rags are ground until thoroughly washed, the machine being supplied with a continual flow of clean water.

3. The contents are then allowed to go into a draining-chest, where the water is drained away.

4. The *stuff* is put into bleaching-vats of stone subjected to a strong solution of chlorid of lime for about twenty-four hours, and frequently agitated.

5. It is then placed in a hydraulic press so as to remove all the liquid and chlorid of lime.

6. It is then dumped into another washing-machine and again broken up and called *half-stuff*.

7. It is next placed in a beating-engine, where the fibers are again ground until they are quite separated.

8. It is then placed in a pulp-vat, where a wooden wheel called a *hog* agitates it, and the loading-material — china-clay or pearl-white — is added. A sizing, which is a mixture of resin, soap, and alum, is added to the fibers. All is then brought into contact with a solution of alum, and a precipitate is deposited on the fibers.

9. Then follows coloring. Even for pure white paper, color must be added to the pulp, such as cochineal,

ultramarine, or magenta and anilin blue. The pulp is now ready for the paper-machine. The machine consists of a pulp-vat with a wheel inside to agitate the pulp. Through numerous compartments the pulp is carried, subjected to pressure to take out all of the moisture, no strain being put upon the web of the paper. Sometimes rollers filled with steam commence drying the web by means of drying-cylinders and smoothing-rolls. Then it is passed through polished rollers of cast iron and subjected to considerable pressure, giving glossiness to the surface. Then the web is cut into different widths, and the water-mark is impressed upon the surface.

The Lesson : Different kinds of paper now in commercial use should be shown to the children. It would be interesting to examine the quality of the paper under a magnifying-glass or, better still, a microscope. It would also be advisable to tear pieces of the ordinary wrapping-paper to show the fibers of which it is composed. Have the children tell the difference between writing-paper and blotting-paper. Tell the uses of paper, and why it is that we do not write on blotting-paper.

Phonetics : While no phonetics are indicated, the teacher will find it necessary to write upon the blackboard such words as *Egyptian*, *papyrus*, *valuable*, etc., for pronunciation purposes.

LESSON LXXI

The Lesson deals with the mythological story of "Daphne," and may be connected with the lesson dealing with trees. Talk with the children about the details of the picture and about the different points emphasized in the text. Ask such questions as "Who was Daphne?" "What did she change into?" "Have you ever seen a laurel-tree?" "Do you know who Apollo was?" "Why has Apollo a lyre in his hand?"

In connection with this story, tell of Arachne and Narcissus.

Phonetics: If the teacher has time, she might select one or two easy sentences from the text and give a thorough drill in phonetics upon the board. The drills as given on the lesson page should be used as heretofore suggested.

LESSON LXXII

The Lesson : The practical application of what is gleaned in the schoolroom is what the teacher should have constantly in mind when she starts the pupil in a new branch of study. One of the weakest points in the educational system of to-day is the lack of confidence that the student has in applying what he has received from books or lectures.

It is a principle of psychology that in the growth of the mind to adult development there is a transition from the simple to the complex. A child cries for the moon long before he realizes that there is space between him and the object of his desire. The child is pleased with an orange first because of its yellow color, afterward because it is good to eat. So it is in the study of bird life. "What a beautiful bird!" is the child's exclamation — beautiful because of its brilliant plumage. "What a pretty

song!" is the child's cry, because he has received pleasant sound=sensations.

In the Second Reader the child is taught to correlate facts and to ask questions. It is not enough for the teacher to tell a child that the woodpecker has a beak and that the humming=bird has a sharper one, but she should go a little further and explain the uses of the woodpecker's beak and that of the humming=bird. It is not necessary that she enter into a discussion of the theory of evolution, showing how natural selection has resulted in the forms we see to=day; it is not necessary that she become scientific; but it *is* necessary that she become interesting and show on her part willingness to enter heart and soul into the work she has in hand.

Bird Migration: The lesson devoted to bird migration treats of the subject in a general way. Why birds go from one place to another according to changes in seasons is replete with problems that might become the basis of an interesting talk. An explanation should be given of the causes of migration: (1) climatic changes; (2) necessity of particular food. The time of ap-

pearance and departure of birds is different in different localities.

Another topic of conversation might be the brilliant plumage of birds in summer-time and their subdued colors in winter.

LESSONS LXXIII, LXXIV, LXXV, LXXVI

The Lessons: The teacher who will examine the card catalogue of any library will realize that the Shakespearian scholar has an *embarras de richesse*. The most popular books which the teacher could consult to advantage would be "Shakspeare: His Mind and Art," by Edward Dowden (Harper & Brothers); "William Shakespeare: The Man, the Poet, and the Dramatist," by Hamilton W. Mabie (Macmillan & Company); "The Forerunners of Shakspeare," by Sidney Lanier (Doubleday, Page & Company); "Shakespeare the Boy," by W. J. Rolfe. For stories dealing with Shakespeare, see John Bennett's "Master Skylark" (The Century Company) and also

“Will Shakespeare, Lad,” published by the same house. Of the works of Shakespeare, the best edition for ordinary use is “The Temple Shakespeare,” tho some may prefer Rolfe’s edition, which is chiefly valuable for the copious notes in the back.

The Play: The story of “As You Like It” is one that is intimately connected with nature, and for this reason it has been selected for the Reader. Throughout the work, Shakespeare shows a love for natural scenery that he only, among all poets, knew how to bring forth in a human way. There is not a part of “As You Like It” which is not full of that fresh and delightful spirit which makes the play a comedy with a deeper significance than the word *comedy* usually bears.

The teacher should refresh her memory by rereading the play and marking those passages that emphasize Shakespeare’s love for nature.

Phonetics: Lesson LXXIII consists of ten words with their phonetic spellings for pronunciation purposes, also a phonetic drill on the diphthongal sounds **ai** and **au**, which should be used according to the directions heretofore given, special stress

being laid upon the correct positions of the organs of speech. The phonetic sentence is likewise to be used.

Lesson LXXIV consists of a pronunciation and phonetic drill.

Lesson LXXV contains a pronunciation drill.

Lesson LXXVI consists of a review of the diphthongal sounds and also a short review of the long and the short vowel sounds of the Scientific Alphabet. The teacher should bear in mind that the symbols of the Scientific Alphabet represent particular sounds, and should be drilled upon whenever there is an opportunity.

LESSON LXXVII

General Remarks: Cone-bearers form an interesting group of trees. Among these are the pines, which are a survival of a prehistoric age. They are the oldest living representatives of the forests of the ancient world. [*Vid.* Keeler's "Our Native Trees."]

There are thirty-nine species of pines in the United States, writes Harriet Keeler. They are tolerant of many conditions of soil and climate, from the water's edge to the timber-line on the mountainside. The roots do not descend very deeply. The wood may be hard or soft, and is usually resinous. The other products are turpentine, resin, and tar.

WHITE PINE

Name.—Pine. *Pinus Strobus*.

Family.—Pine.

Species.—White.

Height.—120 feet.

Trunk diameter.—3 to 4 feet.

Distribution.—Forms dense forests, from Newfoundland to Manitoba, south along the Alleghanies to Georgia and southwest to Valley of Iowa; grows at a height of 4,300 feet in North Carolina and 2,300 feet in Adirondacks.

Bark.—Old trees, dark gray; fissures into broad, scaly ridges.

Color of wood.—Light brown.

Description of wood.—Light, soft, compact, straight-grained, very resinous; easily worked; takes a fine polish

Use of wood.—Lumber, shingles, cabinet-making, interior of houses, masts, spars of vessels.

Shape of leaf.—In clusters of five; 3 to 5 inches long; sharply serrate.

Color of leaf.—Bluish green; in autumn, yellow.

Time of flowering.—June.

Fruit.—Cones.

RED PINE

Name.—Pine. *Pinus resinosa*.

Family.—Pine.

Species.—Red.

Height.—70 to 80 feet.

Trunk diameter.—2 to 3 feet.

Distribution.—United States and northward from Newfoundland to Manitoba; in United States is most abundant in Michigan, Wisconsin, and Minnesota.

Bark.—Bright reddish brown, scaly ridges divided by shallow fissures.

Color of wood.—Pale red.

Description of wood.—Light, hard, close-grained; very resinous bands of small summer cells.

Use of wood.—Buildings, bridges, piles, masts, and spars.

Shape of leaf.—In clusters of two, 4 to 6 inches long; slender, flexible.

Color of leaf.—Dark green.

Fruit.—Cones.

The foregoing material is condensed from "Our Native Trees."

LESSONS LXXVIII, LXXIX

Lohengrin: The legend which is here told should be treated simply as a fairy-tale and the deeper significance of the Holy Grail omitted. Tell the children that both Arthur and Lohengrin were knights of the Holy Grail, which they were continually seeking. The modern and simple application is that every earnest worker is seeking for an ideal that he never reaches, since the ideal is only a relative quantity which represents progress and development. The use of this story as a Reader lesson is based upon the experience of a teacher of the Pratt Institute (Brooklyn, New York), elsewhere told in the Manual. Remember that the children are more susceptible to the beauties of the so-called classics than we give them credit for, and it is fast becoming a universal belief that the sooner children are brought into touch with the

best in the world's literature, the better it will be for them.

- **Related Subjects:** (a) King Arthur and the Grail; (b) The Swan; review the fundamental characteristics in the previous bird lesson

Phonetics: While none are suggested in the lessons, the teacher should apply methods previously used.

LESSON LXXX

The Fox: The material given in the Reader is taken from John Burroughs' "Squirrels and Other Fur-Bearers" (Houghton, Mifflin & Company), which the teacher is advised to consult.

The teacher in telling about the fox should bring in some points about fox-hunting and the cruelty of this sport. Tell of the wonderful scent of the hunting-dogs. Mr. Burroughs gives one or two instances of the cleverness of the fox in eluding a scent.

From "American Animals," Stone and Cram (Doubleday, Page & Company), we condense the following material:

Red Fox: Also called silver fox; length forty inches; rusty red; at the tip of the tail the hair is white; throat white; ears tipped with black; range, northern North America, south to Georgia. This fox is very shrewd, cunning, and quick; he is bold and audacious.

This fox is a frequent visitor of the hen-roosts, where he spreads consternation and destruction. "I have known a fox to kill three or four full-grown fowls in an orchard, close to a farmhouse where the family were at breakfast, and get away without being seen, carrying one of the victims with him."

To offset this, the fox destroys field-mice and woodchucks. In the winter-time he follows in the ruts made by the farmer's sled.

Talking of the hunting of the fox, the same book has the following:

"To be run down and overtaken and torn to pieces by overpowering numbers, when at last his strength fails him and all his wiles have proved in vain, is a cruel end for any animal to meet."

The red fox has a slight bark; his ears are wonderfully keen.

The teacher will find in the same book a discussion of the Arctic fox, the gray fox, and, closely allied to the foxes, the gray wolf. For fables concerning the fox, consult Lesson IV of this Manual.

LESSONS LXXXI, LXXXII

Shadow: In giving a simple explanation of a shadow, tell the children that sunlight will not pass through opaque bodies, but will pass on all sides, leaving a certain portion of the ground or space in its path in total darkness, except for the light received by reflection. What is an "opaque body"? One that sunlight will not pass through. A child placed before a white curtain upon which a brilliant light is thrown will cut off the light that would pass through the space he occupies; as the rays of light are never parallel, but diverge from one source, the shadow shown upon the screen is larger than the

child himself in proportion to his distance from the screen. This may be very well shown by a simple diagram upon the board, in which the lamp, the child, and the shadow are pictured.

Let the general talk about shadows be followed by a description of the eclipse of the moon, which may easily be shown by means of a globe and candle-light, as may also a simple explanation of the phenomena of day and night.

The Poem : This is taken from Stevenson's "Child's Garden of Verses," and should be memorized.

LESSON LXXXIII

Memorial Day : The children, having now reached the age when events of national history begin to impress themselves upon their imagination, will grasp the significance of the great struggle that occurred between the North and the South. Ten years ago what was known in the South as Memorial day and what was

known in the North as Decoration day were events with far different significance; but since our Spanish-American war, Memorial day and Decoration day mean something more than a memory that involves a tremendous sectional conflict. And it is this common phase of the event that the teacher should emphasize in the classroom. "Why," a child may ask, "is it that in the South the day is called Memorial day and in the North it is called Decoration day?" The teacher must take care not to foster any sectional feeling in answering this question, but she must be prepared to answer it. In the North it is a day of rejoicing as well as a day of paying respect to the dead. In the South it is a day of grief, not only for those who have fought for the land, but also for a "lost cause." The Civil war will sooner or later have to be studied by the children, and it would be well to prepare them with the idea that the war is passed and that we are one nation. But to the imagination of a child the events, from the first shot fired at Fort Sumter, will be sure, notwithstanding the fact that we all salute the same flag, to awaken some sectional feeling. Care must

e taken in regard to this. A Southern boy even now fights through the Civil wars tho it were a reality. The histories have not yet been able to take an unprejudiced view of the struggle, and the historian shows too easily where his sympathies are centered, in the distortion of facts.

Phonetics: To be used as in previous lessons.

LESSON LXXXIV

Bible Paraphrase: See note for Lesson LXXXVI, page 174 of the Reader.

LESSON LXXXV

We have had occasion to base a previous lesson on Eugene Field's "A Little Book of Profitable Tales" (Charles Scribner's Sons). The volume forms delightful reading, and there is hardly a story mentioned in the table of contents that could not in some revised form become the basis for a

lesson. Much on the order of "The First Christmas Tree" are the two stories that follow it in the same volume, "The Symbol and the Saint" and "The Coming of the Prince." The spirit of the Christ, apart from its theological significance, has become a universal spirit. Ian Maclaren (Dr. Watson) has, in his "Life of Christ," made the assertion that hard indeed would it be to imagine the world without this influence; blot out the personality of Christ, and see what is left.

Dr. Henry Van Dyke, in his inimitable style, has told the story of "The Other Wise Man," basing the incident upon the birth of Christ, and upon the adventures of the fourth wise man, who never reached the manger. It is contained in the collection "The Blue Passion Flower."

LESSON LXXXVI

The following notes cover lessons XXXVIII (Reader, page 87), LV (Reader, page 120), LXII (Reader, page 130), LXIX (Reader, page 142), LXXXIV (Reader, page 170), and LXXXVI (Reader, page 174).

These lessons are introduced under the heading of "Hebrew Literature" and correspond with the other lessons grouped under the headings "American Literature," "Greek Literature," "German Literature," etc. Five of the lessons are paraphrases of the Bible text made by Mr. Edwin Markham, one of our foremost American poets. In preparing these paraphrases for the Reader, Mr. Markham adhered as closely as possible to the original, basing his work upon "Young's Literal Translation of the Bible." These lessons have met with approval by members of the Protestant, Catholic, and Jewish faiths.

A Bible for children was recently published by the Century Company under

the editorship of Rev. Francis Brown, and an introduction written for it by Bishop Henry C. Potter, from which we quote the following:

“We may call the books of the Bible a literature in the sense in which other books are a literature; but that does not make them identical with other literature. We may be unable always to designate, or even to discriminate, what that is in their literature which makes it unlike other literature; but the fact remains that it is different, and that this is witnessed to by the universal consciousness of man, wherever the book has gone, there can not be any honest doubt. Peasant and prince, scholar and toiler, the wise and the simple, ripe years and childhood, have found in it something that spoke to them, touched them, held them, quickened them. Its words—and that because there was a living and immortal fire in the thought behind them—have burned themselves into the inmost consciousness of human souls, and have endured there, to awaken and transform them. The stories of the Old Testament, the poetry of David and Isaiah and their compeers, the matchless Life whose brief work in the world is told in the four Gospels—these have refused to be forgotten, ignored, or dismissed to the world’s rubbish-heap of outworn legends.”

The Text: The text of these six lessons should be read by the teacher to the pupils, but should not be commented upon from the dogmatic aspect. The difficult words in the text should be pronounced by the teacher and written phonetically upon the

blackboard, as has been suggested in previous lessons. Use the different words in sentences and see that the children have a clear understanding of what is meant, using the difficult words themselves in sentences of their own making.

Remember that these lessons have been introduced as Hebrew literature, Hebrew being an inclusive term and relating as much to the Christian as to the Jew. If the teacher thinks it advisable, she might have the children commit some of these paraphrases to memory. Possibly she might desire only to have the pupils catch the general spirit and when the time comes turn to the older versions for memory work.

In the Twenty-third Psalm there is a pastoral element that will readily correlate with the nature lessons that are to be found throughout the book.

LESSON LXXXVII

Two Songs from Shakespeare:

These are to be treated as heretofore suggested for the different poems in the book. The teacher is to have the difficult words carefully pronounced, and base phonetic sentences upon the text. This subject is to be correlated with the lesson on Shakespeare, page 149, and likewise with "As You Like It."

LESSON LXXXVIII

General Review: The same course is here to be adopted as was outlined for Lesson XLV, page 101 of the Standard Second Reader.

LESSON LXXXIX

Poem: This is to be read to the children and its significance explained. The teacher is to follow the course of phonetics she thinks necessary, and if the preceding lesson, which is a general review, has not been finished, she is to continue with this lesson in connection with the poem.

APPENDIX

The Appendix of the Standard Second Reader is self-explanatory, and we therefore think it requires no detailed treatment here. The teacher is referred to the Teachers' Manual for the First Reader, page 236, for additional material. The outline drawings to be found on pages 197, 198, 199 of the Reader are given to simplify the task of explaining the many color-pictures appearing throughout the book.

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In the making of this reader the aim has been to give clear enunciation, and to train the pupil in detecting and producing the sounds that make the language. To give precision, what is known as the Scientific Alphabet is used for *pronunciation purposes only*. In the thoughts of the lessons, preference has been given to those that tend to build character.

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"Dr. Funk has, with an appreciation astonishing in one not credited with thinking along lines pertaining to primary education, produced a work that is so original and so practical that one can but admit at once the value and usability of his little work. He promptly dignifies the primer, giving to the little reader the kind of material for his thought to act upon, that is most natural and pertinent. These basal thoughts underlie his primer: a child learns words by trying to understand or tell some thought; he will learn these words as readily if the thought is something worth while as if it is trivial; and of various instructive thoughts, preference should be given to those that give *in-form-ation* — that build character. 'The school that does not grow character is a failure.'

"The author claims that the essentials for the little ones are to detect and produce the sounds that make up the English language, and to get a vocabulary. A most thorough study of sounds is given, music being made a continuing accompaniment to that end. The pictures are many, delightful, and illustrative. The lessons are progressive and are most carefully graded. The book makes a distinct and new epoch in the production of primary readers; a cordial welcome awaits it from the hands of all first-grade teachers.

"With the primer is a teachers' manual that is replete with suggestive thought and useful information for teachers."

(Continued on Next Page)

**From Prof. GEORGE MACLOSKIE,
Prof. of Biology, Princeton Uni-
versity:**

“As one of the unfortunates who were compelled to pass over the rough places of our antique spelling, I feel grateful to the innovators, Americans and others, who have helped to make the way smooth for the young people. And I cordially welcome the Standard First Reader, which comes with all the charms of striking type, poetry, and brightly colored pictures, on the beneficent mission of lightening the burden imposed by our own ignorance and prejudice.”

**From FRANCIS A. MARCH, LL.D.,
L.H.D., Lafayette College, formerly
President of the American Philo-
logical Association:**

“I am very glad to see this Reader. I hope it may be taken up at once by leading normal schools and kindergartens. Then it will spread as fast as teachers can be prepared for it. I hope to live till it is the first question asked of all applicants for places in the primary schools: ‘Can you teach Funk & Wagnalls First Reader?’ ”

**From HARR WAGNER, Editor
“Western Journal of Education,”
San Francisco, Cal.:**

“I am delighted, charmed, and instructed with the excellence, the newness, and the soundness of the ‘Teachers’ Manual’ and the accompanying ‘Standard First Reader.’ I shall use it in my institute work this fall.”

**From T. A. MOTT, Superintendent of
Schools, Richmond, Ind.:**

“This is a beautiful book—in every way attractive. I know of no First Reader as attractive in all of its parts as this.”

From GILMAN C. FISHER, Superintendent of Schools, Great Barrington, Mass.:

“This is a Reader that I am willing to recommend for a trial in our schools. The twelve points claimed for it are strong, and strongly put. If the Reader in the schoolroom fulfils this promise, it will sweep the market. I believe in drills in phonics, that they should begin early, and that every effort should be made to make the lessons, even in the First Reader, instructive.”

From E. E. SCRIBNER, Superintendent of Schools, Dunkirk, N.Y.:

“This Reader appeals to me favorably in all respects. I intend to use it supplementary next year. There are many reasons why phonic drills should be given from the beginning of school-life. Words and letters are cold instruments for the expression of thought, and of course are valuable only as such instruments. They should therefore have incidental consideration, and it certainly should be the chief aim in teaching to develop in the child's mind thoughts which are elevating and build character—the formative mind is easily directed.”

From CHARLES H. HORN, Superintendent of Schools, Traverse City, Mich.:

“I will recommend this Reader to teachers of primary classes. I am convinced that attention should be given to *sounds* at the beginning of a child's school-life, and I am convinced that letters should be learned *incidentally*; am not so sure about words. Unquestionably every effort should be made to have lessons taught in the First Reader of a character-building kind. Were I to remain superintendent of this place, I would urge this Reader upon the teachers of the primary classes.”

**From E. BENJ. ANDREWS, LL.D.,
Chancellor University of Nebraska,
Late Superintendent of the Public
Schools of Chicago, and formerly
President of Brown University:**

"The extraordinary merit (as well as novelty) of the Reader is that, without violating any pedagogical principle, it introduces children to a noble range of social and ethical ideas level with their apprehension. This is a great step in advance. On witnessing it I wonder it has not been taken before. It is a splendid specimen of correlation on a high plane.

"I believe with this Reader that the drill in phonetics should begin early, and that School Commissioner Harris is correct in saying that children who are trained in phonetics and then in common spelling learn to read in less time than by the usual method.

"I heartily agree with the editors of the Reader that words should be taught in connection with thoughts, and that these thoughts should tend to build character. I am greatly pleased with this Reader."

**From Prof. W. A. ANTHONY, Cooper
Union Night School of Science, N.Y.:**

"I have been a teacher for nearly fifty years. The ideas that are embodied in this First Reader certainly seem to me very reasonable, especially the use of the Scientific Alphabet for teaching proper pronunciation of words. The plan of teaching the child *ideas* seems to me above all to be commended. I consider that there is nothing more important in the education of a child than the study of nature, and it seems to me that every child's education should begin in the open air, and what he is taught to read should have relation to what he has seen. I am glad to see that many of the lessons in this First Reader have relation to things with which the child is likely to be familiar, and that in the Manual the teacher is recommended to take the children out into the fields and woods where they can see the birds and animals and flowers, to which the lessons refer."

(Continued on Next Page)

From WILLIAM T. HARRIS, U. S. School Commissioner, Washington, D. C.:

“I am glad that this Reader gives emphasis to the importance of phonetics. I think that the use of a phonetic alphabet would help forward the work of teaching English in Porto Rico and Manila.”

[Mr. Harris gives the result of his experience in drilling in phonetics as Superintendent of the Public Schools in St. Louis, stating that he found that those taught to read first phonetically and then in the common spelling learned both ways in less time than they were able, by the other method alone, to learn to read the common spelling, because, being familiar with the phonetic symbols, the variations from them attracted attention and fastened themselves on the memory.]

From THOMAS J. KIRK, State Superintendent of Public Instruction, Sacramento, Cal.:

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