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A WORD ABOUT TREES

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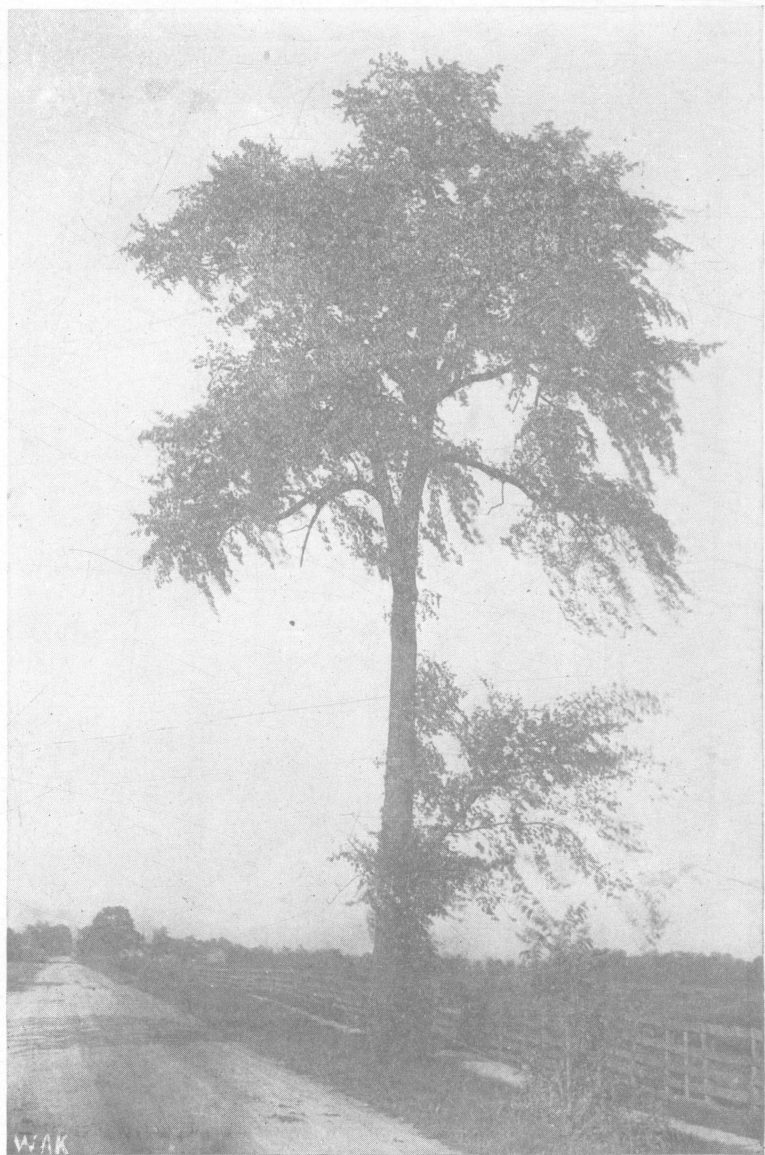


Come forth into the light of things;
Let nature be your teacher.

—*Wordsworth.*

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No one loves nature who does not love trees.—*L. H. Bailey.*

AUTUMN WOODS



Oh, Autumn! why so soon
Depart the hues that make thy forests glad,
Thy gentle wind and thy fair sunny noon,
And leave thee wild and sad!

Ah! 'twere a lot too blest
Forever in thy colored shades to stray,
Amid the kisses of the soft southwest
To roam and dream for aye;

And leave the vain low strife
That makes men mad—the tug for wealth and power—
The passions and the cares that wither life,
And waste its little hour.

—*Bryant.*



(a) Blue Ash
(c) American Elm

(b) Wild Cherry
(d) Sycamore

A WORD ABOUT TREES

PROFESSOR WILLIAM ASHBROOK KELLERMAN.

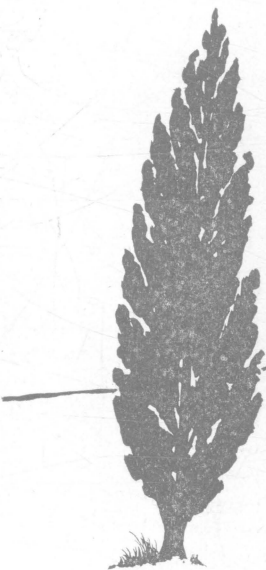
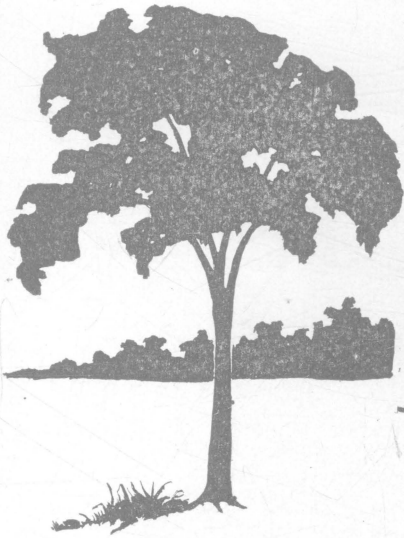
“Woodman, spare that tree.”

If one should think it necessary to urge the importance of trees, to show their value in the arts and industries of life, the large part they play in making the beautiful landscape, or even their utility in a system of education, a very long article could be written and a strong case made. Fortunately no space need be devoted to such matters when one is writing for those who live among trees, who really know trees, into whose very life the influence of the sturdy oak has entered, to whom the graceful and majestic elm has been an informing though silent factor in his mental and spiritual development. It is to the people of the country, or the people who love the country, who know or should know how sweet is the communion with nature in her visible forms, to whom I would make a suggestion—a hint is all that is needed—that a closer sympathy will bring greater pleasure, more intimate knowledge, greater profit.

Then, here is the first suggestion for the boy and the girl, for the children both young and old: Stand a distance from the tree that grows in your door yard, over in the field, in the open woods, by the roadside or river's brim, that you may see it in all its beauty and individuality, see it alone, limited, as a picture, and consider it as a thing of beauty—whatever other point of view or attention you may give it afterwards. Is it an oak? What a giant frame it has—a massive straight trunk, a few great branches at proper places, strong and angular, the large branchlets quite in keeping with its ruggedness, the leaves firm and cheerful. Or is it a graceful elm? Majestic beauty it represents—a true upright trunk presently lost in great sweeping boughs, the graceful curves still more evident in the smaller branches, finally the charming spray of drooping twigs and small bright rich leaves. Possibly a Norway spruce was planted in the open several decades ago. A very different picture is then presented: a towering shaft embellished with perpetual green, the long lower branches almost or quite touching the ground, the succeeding shorter ones in parallel series to the tip of the spire, a pleasing picture in nature, even if somewhat stiff and artificial when copied in art.

But these pictures should be real. And this requires, first, ample time to appreciate them, fully to receive them into the mind and soul. A glance, a repeated glance is not sufficient. Look when the early sun flushes them with brightness and takes away the morning dew. They have a splendor also at midday, which is scarcely excelled in the glorious evening colors when the branches are thrown against the western sky. The beauty and grandeur are there—sung by poets, painted by artists, realized by all who cultivate a sympathy with nature and daily commune with her. The bright minds of children need for fuller appreciation of this only the assistance, the suggestion, the companionship of those more experienced.

We have called on Miss Bracken, the Professor of Art at the Ohio State University, for assistance, and she has dashed off a few trees for us. We recognize the elm at once; the strong oak is equally evident; the



Elm
Lombardy Poplar



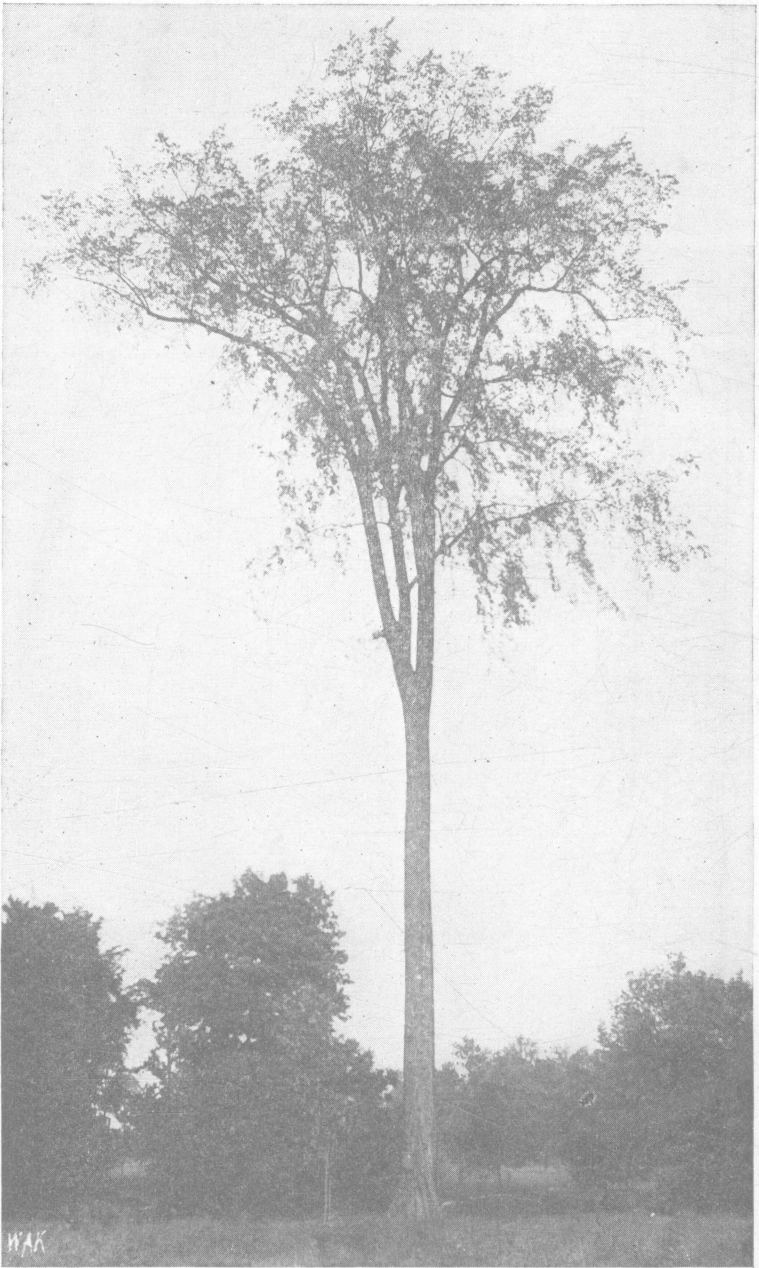
Oak
Spruce

peculiar Lombardy poplar needs no label; and the Norway spruce with its long horizontal branches almost touching the ground for support, is a real tree—of the kind too rarely seen in this country—for even the lover of trees too often plants it so close to the house, or to other trees, or later spares not its splendid lower branches, that it is impossible for it to stand forth in its true glory. This simple style of illustration, the correct first step in drawing, is a pattern for the children to imitate; it helps to see the tree, the real tree. No child, young or old, will fail to get both pleasure and profit in efforts in such representation. (See page 6, four trees in silhouette.)

In furthering this idea and trying to realize the plan conceived, more prosaic suggestions and directions must be given. Pencil and tablet in hand, try to reproduce in a few strokes the prominent features before you. Sketch the trunk and the large branches only. Neglect the branchlets, the spray, and foliage—a trained artist would fail should he attempt to reproduce completely the tree in all its beauty and reality. The strokes should be with faint pencil at first, mere dots or guide lines. It will surely need changing, revising; it is so difficult to do just the thing we want to do, awkward and inexperienced as we are. Now look again at the sketch. Does it reproduce the fundamental feature or prominent character of the oak you are looking at, or would it do as well for the ash or the elm? It is your own criticism that will improve your picture, enable you to see the tree as it is, and make the effort as pleasant as profitable.

Try the elm—one of the Grecian vase type. A few strokes for the trunk are soon lost in long curved and gently spreading branches. Or the tree selected may have a great vertical axis that supports irregular and wide-spreading branches, never angular as the oak, never stiff as the ash, and myriads of smaller branches gracefully droop and end in indefinite spray. Difficult it is to reproduce the exquisite beauty, therefore, we must be content with suggestions of the more elaborate grace. Use fewer strokes, if the sketch is dimmed with the multiplicity. Go next to a symmetrical young maple; then try a beech. And nothing is more fascinating than the great sycamore; and you may be so fortunate as to have a giant tulip tree ("Yellow Poplar") or a sturdy pine for a model. The sketch will be very unsatisfactory at first; lay it aside and try again. Compare and criticize with your companions. You will never perhaps get a picture that wholly suits you, but with repeated attempts the sketches will grow better, fuller of life and beauty. Your own mind will grow with the effort—and that is what we call education, that is what we call life.

It is not simply that this fascinating study will bring to mind the realization that an ash is decidedly different from a buckeye; a hickory, of a type unlike an elm; that a willow is different from a cottonwood, a sassafras, a sweet gum or a sour gum, and all the others. But the trained and sympathetic observer will find a hidden pattern all its own for each individual tree. The American elm, so common and so beautiful, affords us perhaps the very best illustration for the case in hand. Each tree, plainly enough an elm, has its own physiognomy, its peculiarities, sometimes eccentricities, as real as has each person. The old elm in the field could not replace that by the roadside without detection by a real observer. My album of elms is by no means monotonous; my score



THE WHITE OR AMERICAN ELM
Model for 1 rawing



Fig. 1. First step in making an outline drawing of the White Elm

Fig. 2. Second step in making an outline drawing of the White Elm



Fig. 3. Finished drawing of the White Elm

of ash trees gives one as pleasant a variety as the prints of the same number of persons. Those negatives were made with as much enthusiasm and delight as yields the work on landscapes, inanimate objects, or human subjects.

Perhaps with infinite practice you may not get very good sketches; at least, I must confess my own weakness in this direction. But the good lens comes to my assistance; and I am led, therefore, to make yet a suggestion to those who may possess a kodak, a pocket or a view camera. I would not have you take fewer pictures of the dogs and chickens, old Dobbin, the tots in their tumbles and poses, in their fun and in their fine clothes, the playhouse, the fences, the windings of the brook and the old bridge—all these help to make up the pleasures of home, something for mother to see when the dishes are done, for father to enjoy when he comes home from his work. But I would urge that *the trees receive their share of attention*. They have a beauty precisely their own which the camera, after much practice, will catch and fix. Never can such pictures be permanently discarded. And random picture taking, expensive, is not condemned so much even on the score of expense as on the point of utter inutility. Photograph those trees that are most pronounced in physiognomy or peculiarity—those that possess beauty, boldness, or grandeur; those that appeal to you as in some respect superior, worthy of your attention or admiration. Select too, the point of view most striking or characteristic. Have enough but not too much foreground; the sky also will contribute its share to the effectiveness of the picture.

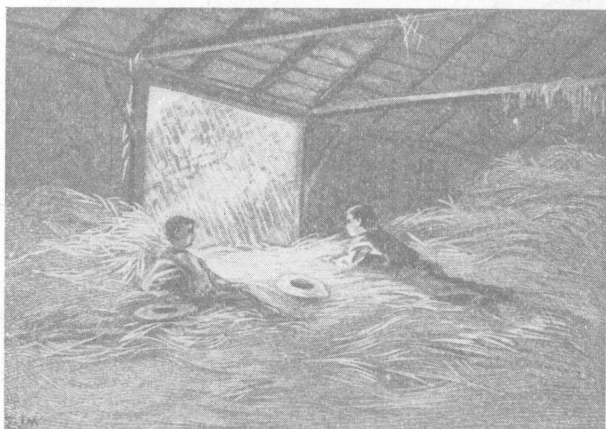
Another thing may be said in favor of such attention to individual trees—individual shrubs or herbs also naturally, at least occasionally included in such work. It will train one the better to perceive and appreciate the beauty in the landscape, the chief factor of which generally is the harmonious setting, the disposition and adjustment of trees in masses; sometimes, however, an isolated individual is equally important. But it is skill of higher order that is demanded when landscapes form the object of the effort. The individual tree is centered on the plate—it, in fact, being the sole object of the picture. But the landscape has many factors that determine its beauty—no single tree or other object dare be obtrusive, and one would scrutinize the plate most thoroughly before making the exposure. What to include; the best point of view, under precisely what light conditions, and other things beside—evidently this is too much for the boy and girl, often more than an artist-photographer masters.

Some views selected from my stock in hand, see first page, second page, etc., may lend force to the argument, at least illustrate some of the contentions of this article, or enforce the suggestions intended to be conveyed. But best of all Miss Bracken has again kindly come to our aid and given some suggestions in models that appeal to us at once. Consult Figure 1 which shows the first serious step to be taken. She has given us the second necessary hint in Figure 2. Still continuing we see before us the finished picture—the real tree in Figure 3. Diligent application on the part of the children may presently lead to such pleasant results. A photograph of the tree used in the above study is reproduced in the full-page half-tone opposite the sketches.

The work here suggested, and more or less plainly outlined in this article, is sufficient for a lesson of considerable length; therefore further directions in tree-study may for the present be deferred.

THE DELIGHTS OF FARM LIFE

"There are so many bright spots in the life of a farm boy that I sometimes think I should like to live the life over again; I should almost be willing to be a girl if it were not for the chores. There is a great comfort to a boy in the amount of work he can get rid of doing. It is sometimes astonishing how slow he can go on an errand, he who leads the school in a race. The world is new and interesting to him and there is so much to take his attention, when he is sent to do anything. Perhaps he couldn't explain himself why, when he is sent to the neighbors for yeast, he stops to stone the frogs; he is not exactly cruel, but he wants to see if he can hit them. No other living thing can go so slow as a boy sent on an errand. His legs seem to be lead, unless he happens to espy a woodchuck in an adjoining lot, when he gives chase to it like a deer; and it is a curious fact about boys, that two will be a great deal slower in doing



From "ON A FARM," used by permission of D. Appleton & Co.
"Helping each other to do nothing" on a rainy day

anything than one and that the more you have to help on a piece of work the less is accomplished. Boys have the great power of helping each other to do nothing; and they are so innocent about it and unconscious. "I went as quick as I ever could," says the boy; his father asks him why he didn't stay all night, when he has been absent three hours on a ten-minute errand. The sarcasm has no effect on the boy.

"Going after the cows was a serious thing in my day. I had to climb a hill, which in the season was covered with wild strawberries. Could any boy pass by those ripe berries? And then in the fragrant hill pasture there were beds of winter green with red berries, tufts of columbine, roots of sassafras to be dug, and dozens of things good to eat or to smell, that I could not resist. It sometimes even lay in my way to climb a tree to look for a crow's nest or to swing in the top and to try if I could see the steeple of the village church. It became very important some-

times for me to see that steeple; and in the midst of my investigations the tin horn would blow a great blast from the farm-house, which would send a cold chill down my back in the hottest days. I knew what it meant. It had a frightfully impatient quaver in it, not at all like the sweet note that called us to dinner from the hay-field. It said, 'Why on earth doesn't that boy come home?' It is almost dark, and the cows aren't milked.' And that was the time the cows had to start into a brisk pace and make up for lost time. I wonder if any boy ever drove the cows home late, who did not say that the cows were at the very farther end of the pasture, that 'Old Brindle' was hidden in the woods, and he couldn't find her for ever so long. The brindle cow is the boy's scape-goat many a time. No other boy knows how to appreciate a holiday as the farm boy does; and his best ones are of a peculiar kind.



"It became very important sometimes for me to see that village steeple."

Going fishing is of course one sort. The excitement of rigging up the tackle, digging the bait, and the anticipation of great luck; these are pure pleasures, enjoyed because they are rare. Boys who can go a-fishing at any time care but little for it. Tramping all day through brush and brier, fighting flies, mosquitoes, and branches that tangle the line, and snags that break the hook, and returning home late and hungry, with wet feet and a string of speckled trout on a willow twig, and having the family crowd out at the kitchen door to look at them and say, 'Pretty well done for you, bub; did you catch that big one yourself?'—this is also pure happiness, the like of which the boy will never have again, not if he comes to be selectman and deacon and to 'keep store.'"

From Chas. Dudley Warner's "Being A Boy."

(This book should be read by every boy who lives on a farm.)

What to Observe in November

Where are toads, frogs, snakes, and turtles now?

What has become of the grasshoppers and butterflies that were with us in September and October?

Which of the following does frost kill: castor bean plant, chrysanthemum, corn, wheat, turnip, tomato, sweet potato, zinnia, sweet alyssum, coleus, and oats.

Is the hair on horses and cattle any longer now than in August? Why?

Does the sun rise directly in the east and set directly in the west? How much farther can it shine in at the south door or window at noon than it did in October?



“Pretty well done for you, bub.”

Is the bark of our common forest trees darkest on the north or south side? How can this condition be accounted for?

Do you find sweet clover and teasel where they were found last fall?

Are the days losing more sunshine in the mornings or in the evenings?

Send plants and insects to be named to A. B. Graham, Superintendent of Agriculture Extension, Ohio State University.

Preparation for Work in Arithmetic

Pupils that are fairly well prepared in the fundamental processes are often found to be deficient in the power of reason. This is due to several reasons, chief among which is their weakness to imagine the conditions, their inexperience, or their inability to judge whether or not any completed part or the result of the process is reasonable.

The child who figures that 42.25 bushels of wheat at 72 cents a bushel is worth \$3042.00 is to be censured less for misplacing the decimal point than for not stopping to think whether \$3042.00 would be reasonable for twenty-one sacks of wheat.

A hog weighing 675 pounds was sold on foot at 12 cents a pound. What do you think about the size of the hog and the price per pound?

Siding for the barn is 16 feet long. Can you see a board that long standing upright? Is that length about right for barn siding?



Library, weights, and measures in the schools of Mad River Township, Champaign Co.

At \$80 an acre how much land might have been bought with the 50c spent for tobacco? Lay off the plot; drive a small stake at each corner and run a white string around it.

How far apart are rows of corn usually made?

In the school district is a tree whose first limb is twenty feet above the ground? Do you know where there is such a tree?

Father took four bushels of wheat to the mill and received 120 pounds of flour. If he received no feed stuff, did he receive the usual quantity of flour?

A man of ordinary strength can shoulder a sack of wheat. How many pounds is he able to place on his shoulder?

My nearest neighbor lives 40 rods south of me. From the school house to what point would be 40 rods? Or from your home to what point?

A cow gives 24 pounds of milk a day. About how many pints is that? How many gallons?

A gentleman says his horse weighs about 1100 pounds. Would you judge it to be a draft or driving horse? Do you know of a horse that weighs 1100 pounds?

A young man said that a sycamore tree was five feet in diameter and about twenty feet around it. Have you any reason to doubt any part of the statement.

The wagon and wheat weigh 60,000 pounds. The wagon weighs 800 pounds. What is the wheat worth at 75c per bushel? What part of the problem do you doubt?

SOIL WATER

The water that falls upon the soil and is taken up by it may be called free water and capillary water.

FREE WATER

That which we find when digging a hole is called free water; water running from ditches and springs is free water. It may be called gravity water because gravity draws it downward through the soil.

Free water in the soil prevents the air from passing between the small particles of the soil on its way to the roots of the plants.

CAPILLARY WATER

The experiments conducted by "Four Boys" in the October number of the BULLETIN illustrated how water moved upward between the small particles composing the soil.

Place a small pile of dry dirt in a plate or saucer and pour water around it at the base. In a little while the water will be seen to be passing upward through the pile. If straight lamp chimneys are used and the soil is packed in one and not in the other quite a difference will be noticed in the time it takes water to pass upward or downward through it. A roller does more than break clods. What is it?

Put some coarse broken stone into a glass jar containing water and shake well but not hard enough to break the jar. Pour off the water being careful not to leave any in the can. Water will be seen to remain on the surface of the parts of stones. Dip a marble into water. After no water runs from it, the marble is damp on the surface. The water that remains on the surface of the marble and particles of stones is called film water.

Which soils will hold the most film water, those composed of very small particles or those composed of coarse ones? Try this experiment with sand after having tried it with crushed stone. Be careful to pour the same quantity of water into each can. From which one can most water be poured after thorough shaking? Try clay.

Jacky Frost.

Laura E. Richards

Eleanor Smith.

Allcquello

1. Jacky Frost, Jacky Frost Came in the night, Left the meadows that he cross'd
2. Jacky Frost, Jacky Frost Crept round the house Sly as a sil-ver fox,

The first system of music features a vocal line in treble clef and piano accompaniment in grand staff. The key signature is one sharp (F#) and the time signature is 2/4. The tempo marking is 'Allcquello'. The lyrics are: '1. Jacky Frost, Jacky Frost Came in the night, Left the meadows that he cross'd' and '2. Jacky Frost, Jacky Frost Crept round the house Sly as a sil-ver fox,'.

All gleaming white; Painted with his sil-ver brush Ev - 'ry win-dow
Still as a mouse. Out our lit-tle Jen-ny came, Blushing like a

The second system continues the vocal line and piano accompaniment. The lyrics are: 'All gleaming white; Painted with his sil-ver brush Ev - 'ry win-dow' and 'Still as a mouse. Out our lit-tle Jen-ny came, Blushing like a'.

pane; Kiss'd the leaves and made them blush, Blush and blush a - gain.
rose, Up jump'd Jack - y Frost, And pinch'd her lit - tle nose.

The third system concludes the piece. The lyrics are: 'pane; Kiss'd the leaves and made them blush, Blush and blush a - gain.' and 'rose, Up jump'd Jack - y Frost, And pinch'd her lit - tle nose.'