


OLD COLONY  
NATURALIST  
OF  
PILGRIM PLYMOUTH



MIDSUMMER  
NUMBER  
AUGUST · MCMIV



MCO



A decorative border of black and white line art surrounds the text. It features large, detailed flowers at the corners and along the sides, with intricate leaf and stem patterns connecting them. The style is reminiscent of early 20th-century book design.

# Old Colony Naturalist

A Magazine of Nature

Published by members of the Old Colony  
Natural History Society

---

"Nature, the vicar of the almighty Lord"  
—Chaucer

---

Special Midsummer Number

MCMIV

Single Copies, Fifty Cents

Mail orders addressed to Miss E. Watson, Plymouth, Mass.,  
will be sent post free to any address

PRINTED BY THE MEMORIAL PRESS, LEYDEN STREET, PLYMOUTH, MASSACHUSETTS.



# JAMES B. COLLINGWOOD & SONS

Good Things that are Interesting

Homespun Rugs, Crafts Furniture, Reproductions of Antique Furniture  
India Prints and Hangings, Solid Mahogany Furniture

---

LOOK THEM OVER AT YOUR LEISURE

---

Compliments of

GEORGE MABBETT & SONS CO.

---

## MOORE BROTHERS

4-6-8 COURT STREET

Headquarters for **DRY AND FANCY GOODS**, Millinery  
Laces and Ribbons, Notions, Hosiery and Underwear, Gloves and  
Corsets, Men's Furnishings, Kitchen Furnishings, Souvenir  
Goods, China, Glass, Wooden and Earthen Ware.  
Best Styles, Fine Quality, Low Prices.  
Satisfaction Guaranteed.

---

## BRADFORD, KYLE & CO.

Manufacturers of

**Insulated Electrical Wires**

---

PLYMOUTH, MASSACHUSETTS



## TABLE OF CONTENTS

---

COVER DESIGN, SABBATIA AND PILGRIMS . . .	<i>Mary C. Davis</i>	
THE OLD COLONY NATURAL HISTORY SOCIETY	<i>W. Hedge</i>	5
THE BEAVER . . . . .	<i>A. I. Nash</i>	6
THE TOWN BROOK ABOVE RIVET WORKS . . .	<i>H. C. Dunham</i>	
HILLSIDE OAKS AND FOOT BRIDGE IN MORTON PARK . . . . .	<i>A. M. G.</i>	
THE RAYLESS CHAMOMILE . . . . .	<i>A. M. G.</i>	8
WYANOKE, a poem . . . . .	<i>A. W. B.</i>	
TWO SCENES IN KINGSTON . . . . .	<i>A. A. F.</i>	
IN THE HEARTS OF FISHES . . . . .	<i>F. D. W.</i>	9
THE WILD ROSE OF PLYMOUTH AND THE SABBATIA, sonnets by . . . . .	<i>Jones Very</i>	9
THREE CONCORD LETTERS . . . . .	<i>R. W. Emerson</i>	10
	<i>Henry D. Thoreau</i>	10
	<i>A. Bronson Alcott</i>	11
THE FLOWERING OF THE PEACH . . . . .	<i>Pastonchi</i>	11
IN THE NEWFOUNDLAND WOODS . . . . .	<i>C. F. L.</i>	12
ETCHING OF HOBBS HOLE . . . . .	<i>W. H. W. Bicknell</i>	
A GARDEN OF HERBS O' GRACE, with engraved border . . . . .	<i>E. W.</i>	14
IN A NEW ENGLAND HERB GARDEN, halftone by <i>The J. Horace McFarland Co.</i>		
THE FROST-FLOWER, CISTUS CANADENSIS, (1818) an essay by . . . . .	<i>Rev. Ezra Shaw Goodwin</i>	15
FROM THE HARVARD LAMPOON . . . . .	<i>T. Ybarra</i>	20
A RIPPLE FROM THE TOWN BROOK . . . . .		20
TO THE SABBATIA . . . . .		21
TABLE MANNERS OF THE TREE SPARROW . . .	<i>W. H. C.</i>	22
IN ANN HATHAWAY'S GARDEN . . . . .	<i>A. W. Elson</i>	
LINES ADDRESSED TO ANN HATHAWAY . . .		22
A "RATTLIN'" GOOD TALE . . . . .	<i>W. W. G.</i>	23
A CALIFORNIA CAMPING EXPERIENCE . . .	<i>R. P. S.</i>	23
LOTOS TIME IN JAPAN, with design by . . .	<i>Bunkio Matsuki</i>	24
THE PROSAIC AGE . . . . .	<i>T. Ybarra</i>	24
A WISE SCOTCH TERRIER . . . . .	<i>M. C. S.</i>	26
CONCERNING STRAWBERRIES . . . . .	<i>A. B. Alcott's "June"</i>	26
THE DANDELION, a poem . . . . .	<i>Ethel Hobart</i>	26
PLYMOUTH HARBOR AND OLD BURIAL HILL .	<i>A. S. Burbank</i>	
AN INTELLIGENT COLLIE . . . . .	<i>E. A. G.</i>	27
THE WAY OF THE TOAD . . . . .	" <i>Transcript</i> "	28
"QUEEN ANNE'S LACE." . . . .	<i>C. Z. Blackmer</i>	28
A PILGRIM PAGE . . . . .		29
A WORD OF THANKS . . . . .		30
MADONNA AND CHILD . . . . .	<i>Bureau of University Travel</i>	



## PAROID ROOFING

"IT LASTS"

No tar. Can be applied by anyone. Recommended by the United States Government, the largest railroads and by all who have used it



### NEPONSET RED ROPE ROOFING

The original red rope roofing and siding for poultry buildings. The standard sheathing paper. Specified by the United States Government and leading architects of the country. Samples and full information sent on request.

**F. W. BIRD & SON, Makers**

Established 1817

East Walpole, Mass.

NEW YORK CHICAGO WASHINGTON

## A. C. Chandler & Son

Livery and Sale Stables



Horses, Carriages and Harnesses  
for Sale

MIDDLE STREET AND PARK AVENUE  
PLYMOUTH, MASS.

Steam Heat, Electric Lights  
C. H. SNELL, PROP.

Open all the Year Round  
W. C. SNELL, CLERK



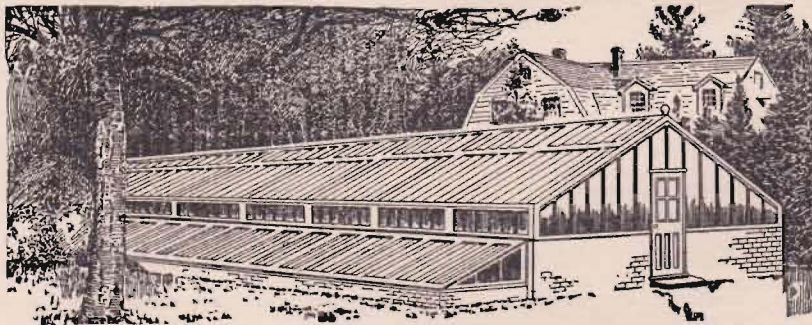
### Plymouth Rock House

Situated on Cole's Hill, overlooking  
Plymouth Rock and the Bay

PLYMOUTH, MASS.

# BUILD THE BEST GREENHOUSES

And So Increase Your Pleasure



WRITE TO-DAY TO OUR N. Y. OFFICE enclosing five cents postage for Construction Catalogue of "up-to-date" Greenhouses.

We make them with both iron and wooden frames. We can erect your houses or supply the material fitted. Our houses are light and durable. Perfectly heated and ventilated.

## LORD & BURNHAM CO.

New York Office:

ST. JAMES BLDG., 1133 BROADWAY

General Office and Works:

IRVINGTON-ON-HUDSON, NEW YORK



# OLD COLONY NATURALIST

## THE OLD COLONY NATURAL HISTORY SOCIETY



ON the evening of January 18, 1893, at the suggestion of Mrs. Charles P. Lombard and Elmer E. Sherman, one of the teachers of our public schools, that a society should be formed for the study of Natural History, a number of gentlemen and ladies met at the residence of Mrs.

William Hedge, in Plymouth, and then and there our Natural History Society was duly organized with the following officers, viz.: President, Benjamin M. Watson; vice-president, A. Cleveland Bent; secretary and treasurer, John W. Herrick; and the following heads of departments: Botany, Miss Lizzie A. Jackson; ornithology, A. C. Bent; entomology and zoology, Dr. Edward B. Stephens; geology, Elmer E. Sherman; mineralogy, John W. Herrick; anthropology, Benjamin M. Watson; and conchology, Charles F. Cole.

During the following month classes were formed for study in the various departments, cases were purchased and collections of specimens were begun, a room in the Town House having been obtained for the use of the society. In May three of our public-spirited citizens, Miss Rose S. Whiting, Mr. Nathaniel Morton and Mr. Gideon F. Holmes, presented the society with twenty-five dollars each and were made honorary members. Professor Frederick A. Lucas of the Smithsonian Institute, a native of Plymouth, who, following the natural bent of his mind, had devoted himself as a boy to the study of natural history and had risen to a position of eminence in the scientific world, also was elected an honorary member in recognition of his valuable services and advice and his many contributions of the Smithsonian books and papers.

In 1895, the society removed to larger rooms in the building in front of the present Casino; again in 1897, to larger rooms at No. 21 Leyden street; again in 1898, to the large front room of the Bank Building, and in 1902 to its present commodious quarters in the same building.

In addition to the work of the various departments and the regular work of the soci-

ety, papers have been read to the society by Benjamin M. Watson, Charles Burton, Colburn C. Wood, William C. Hathaway, A. C. Bent, Dr. Edward B. Stephens, Mrs. Charles P. Lombard, Mrs. William H. Boardman, Miss Kies, Miss Anderson, Mr. William Keyes, Miss Averill, John W. Herrick, Rev. Mr. Rowse, Miss Frances Prince, Dr. Helen Pierce, Mr. Jack of the Arnold Arboretum, Mrs. Mary F. Campbell, Rev. E. F. Clark, Rev. F. B. Noyes, Dr. J. H. Shaw, Mrs. Gideon F. Holmes, Dr. T. D. Shumway, Horace F. Jones of Michigan, Dr. James B. Brewster, L. Birge Harrison, Miss Ellen Watson, Mr. Arthur I. Nash, and others, and various public stereopticon lectures have been given by public lecturers at a nominal price for the benefit of the public.

For eleven years the society has endeavored to increase its usefulness as one of the educational forces of our community, and, beginning with absolutely nothing, now has a large, spacious room, with cases filled with specimens of the various departments, including a collection of almost all the birds of Plymouth County, a collection of botanical specimens, a fine collection of geological specimens, including a valuable collection of fossils loaned by Mrs. William H. Boardman, and many cases of marine and other miscellaneous specimens, including a large collection presented by Mrs. C. M. Dunbar. The society is largely indebted to Mr. John W. Herrick for his never-failing interest in, and work for its interests; to Dr. J. Holbrook Shaw, for his laborious services in the ornithological department; to Miss Minnie K. Batchelder, for her devotion to the general welfare of the society, and to Miss Martha W. Whittmore for her patient and most instructive teaching in the botanical department through each successive season.

With a room, suitable both for study and lectures, now filled with a most creditable collection of specimens, with many cases all paid for out of the modest income of the society, with an assessment for membership of only one dollar per annum, and with everything in perfect condition for future work and usefulness, it is sincerely to be hoped that the community will not allow this efficient and practical school of education to fail in its purpose through want of the moral and financial support of the public.

WILLIAM HEDGE, *President.*



## THE BEAVER



IN the early spring a family of beavers located in a dark, sweet-smelling alder swamp. There were the "Boss" beavers, as trappers call the oldest pair in a colony, their sons and daughters two years old, and the little furry beaver kittens, born in the warm security of the old house, in a pond some miles down stream which the old beavers had made by building a dam across the little brook.

The little kittens were born in February or March, when the pond was ice-bound, and the thick wall of their house frozen hard as granite. But the days were growing longer and the sun was getting warmer; at last spring came with a rush, and a long, warm rain opened the pond. Then the whole family scurried out in search of tender shoots and swelling buds, for they had lived all winter on the bark of their food-wood, stored up the previous fall, and water-soaked bark is but sorry fare under the best conditions.

The dam and house were now no longer necessary. During the long winter they had scoured the bottom of the pond for roots of the yellow water lily, which beavers are very fond of, and had literally cleaned it of everything edible; so they soon struck out for quarters where the spring and summer could be spent in quiet, ease and plenty, and at last they came to the little alder-fringed swamp meadow.

It was in the heart of the great woods, and had been made years before by other beavers damming the stream that flowed through them, which backed the water up and killed the trees. Here vivid green shoots of the young grass pushed up through the oozy banks of the brook. Pitcher plants, wild cranberry, skunk cabbage and cowslips tufted every tussock, and in the pools along the brook the tender shoots of the water lily were everywhere starting from the bottom.

All day long the brook flowed silently through the swamp, with not a sign of life on its glassy surface except the lucky bugs and water spiders that scurried and cut cir-

cles on its smooth surface. But when the sun went down behind the big mountain, and the twinkling stars were mirrored in its depths, a great wave wrinkled the smooth pool, and a little black dot that looked like a snag broke its surface. Then a long rippling V spread away to either bank, as a beaver swam slowly down the brook, its head hardly showing above water. It is one of the old ones, scouting to see that all is safe. Suddenly, with a lurch he humps himself under, hitting the water a sounding slap with his broad tail as he goes, sending a shower of spray high in the air. Then the ripples subside, the brook flows on again, glassy and silent. Something struck the beaver as wrong, and the sounding whack of his tail warned the family; they will stay close for hours now.

The tail of a full-grown beaver is two-thirds the length of its body, and is chiefly used for signalling, but when swimming under water it acts as a rudder to raise or lower the body. When they are cutting wood on land they prop themselves up with their tails, sometimes out flat behind and sometimes bent under and forward, for the strong, pliable muscles with which it is fitted enable them to use it either way.

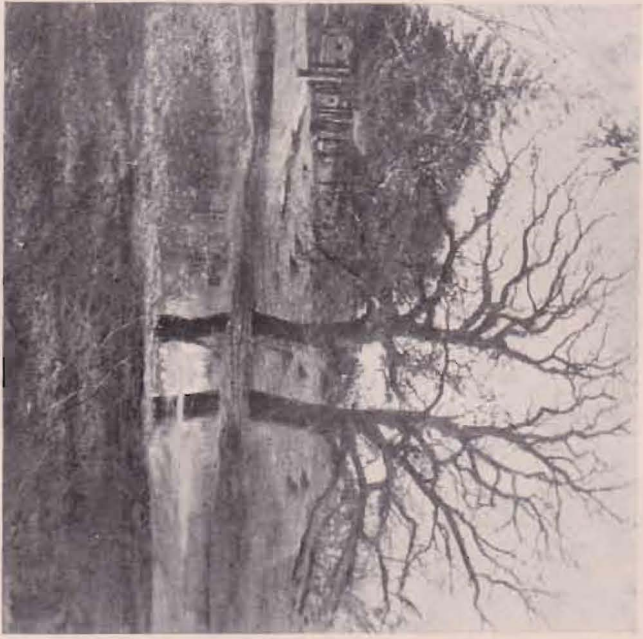
Toward morning the old beaver will again cautiously venture out. He cannot see very well, but his keen nose and ears finally say that everything is all right; then the water of the quiet pool fairly boils as the little fellows scurry round, feeding on the tender shoots, leaves and lily roots. When the rosy flush behind the mountain heralds the coming sun, they seek out some dry, cosy hole in the bank, where they sleep the whole day long. For some time after they are born, the kitten beavers, like all babies, are fed on milk, but with the feast of tender green things they grow like weeds. Exercise makes them lusty and strong, and soon they are able to handle themselves in the water as skilfully as the old ones. Their mouse-colored, downy coat gradually changes to silky brown, as the long "king hairs" that cover the beaver's furry undercoat grow out thickly all over them, and by the last of August they look like small editions of the "big folks."





THE TOWN BROOK, PLYMOUTH, ABOVE THE RIVET WORKS





THE HILLSIDE OAKS



THE FOOT BRIDGE IN MORTON PARK



Their teeth, too, grow so rapidly that the little fellows, as well as all the family, have to keep gnawing away every day to keep them in trim. In their eagerness and necessity they cut trees of all kinds, and examples of the beavers' thoughtless destruction of their food-wood supply are almost always in evidence about their home ponds. In the fall of the year big beavers often cut down trees larger round than a man's body, cut the branches up in lengths and roll or drag these to their pond, where they sink them near their houses, together with smaller logs and branches; on the bark of these they live all winter, when their pond is frozen and the ground covered with snow so that fresh bark is not to be had.

Everyone is disappointed when he first sees a Beaver Dam. The back side of any but a very old one looks like a pile of old brushwood, due to the spring freshets carrying over its top all the old sticks floating in the pond above. But if one will only look at it carefully and consider its construction and its builders, it will appear a very wonderful piece of work. The dam our family returned to with the first frosty reminder of winter had been built where the brook started to pitch down from a little valley surrounded by low hills. At its lower end a giant cedar had been felled in such a way that the brook flowed through its gnarled roots. Using them as an anchor, the beavers built a strong dam around them, and then built out wings on either side, curving slightly down stream until high ground was reached. At the bed of the brook small alders, birches and poplars were cut and laid butts down stream with some regularity. The branches formed a thick tangle into which sticks were floated, on which mud, stones and sticks were then piled promiscuously and trodden down hard with the beavers' feet. With time and the needs of a growing family the dam was lengthened out to a total of 237 feet. By actual measure it was 22 feet through its widest part, seven feet high on the lower side, and the water, on the pond side, varied in depth from ten feet at the bed of the brook close to the dam to a few inches about the shores. The great depth above the dam was made by excavat-

ing material from the bottom of the pond and stream to build the dam. All this mud was dug up by the beavers with their little front paws and carried to the place where it was to be used, in a little round ball held close under their chins. Holding the little ball of mud firmly against their throat, with their powerful hind feet they swim rapidly to their house. The load is then carefully set down and worked firmly into place, with their little front paws, or hands, as they should be called, for the beaver is as clever with his paws as a monkey, and uses them in much the same way. It is wonderful how many tiny loads a colony of beavers can move in a single night, every particle being carried in this way. Their dam contained many tons of mud and small stones, but was small compared with some dams which beavers build.

Within the house everything is made neat and clean, for the beaver in his housekeeping habits is an example of neatness. The mud floor is covered four inches deep with fresh, fine shavings, whittled out by the beaver with his sharp teeth. Each member of the family has its own bed, and sometimes the kittens make little "bunks" for themselves, lined with soft grasses or shredded cedar bark. They can keep very warm in their little nests, which are generally in the wall of the house a few inches above the floor of the living chamber, where they sleep and eat through the long, cold winter, safe in the frozen walls of their impenetrable fortress.

Most people think the beaver very wise and knowing, but it is instinctive and not acquired wisdom that is responsible for their wonderful works. Little kitten beavers, taken from the house when too young even to have seen a dam, and brought up in captivity, soon instinctively begin to dam up doorways or build houses under beds, using boots, brooms and all sorts of small household articles to build with. Its engineering skill evidences only inherited instinct, and is not the result of reasoning powers.

Once the beaver was among the most widely distributed and best known animals. Throughout Europe, Asia, Northern Africa and America it was plenty, but with the set-



tlement of the countries, the cutting down of the forests and building of towns and cities, it gradually disappeared, until only one or two colonies are left in Europe, one on the Obi river in Asia; Africa is denuded, and here in America they are found only on the remote water courses that feed our great wilderness rivers. Think how plenty they once were, right here in New England! Why, just put your finger on the map anywhere, and under or near it you will find Beaver Brook or Beaver Pond or a Beaver Something, so called by your grandfather or great-grandfather because the beavers built there when "he was a boy." In those days the beaver was regularly hunted for his pelt, highly valued as an article of commerce.

In beaver skins the Pilgrims at Plymouth paid their debts to the merchant adventurers in England who furnished them with money and supplies. The Dutch at New Amsterdam had a big trade in the skins and valued the beaver so highly that they put his picture on their seal. The settlers at Jamestown also profited by trade in his fur, while the French settlers in Canada were absolutely dependent upon them. From a source of food and clothing to the Indian the beaver advanced in importance until nations waged war for the control of the rich trade in its fur.

Its usefulness is passed, advancing civilization has exterminated it, and its place in the economy of life has been filled by the cattle and the sheep which furnish so completely our wants of food and clothing. The beaver, with the buffalo, the Indian and the Voyageur, is slowly passing into the mists of oblivion.

A. I. Nash.

---

"AND HE gave it for his opinion, that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together."—*Gulliver's Travels*.

---

WHO WILL write an essay on the way in which different vines twine, some from right to left, some from left to right?

## THE RAYLESS CHAMOMILE



ON THE coast of Maine, in "the country of the Pointed Firs," is a settlement which claims to be older than Plymouth. They show an old fort and uncover some buried pavements of an ancient city, and date back to 1606; but we, of the Old Colony, say, "Where are the descendants of these early settlers?" We point with pride to the "Society of Mayflower Descendants," and ask, "What have you in Pemaquid to compare with these?" Not far from the fort grows a weed which does not claim to be an early settler, but is interesting as a comparatively newcomer, *Matricaria discoidea*, or wild chamomile, according to Gray; Rayless chamomile, according to the lighthouse keeper at Pemaquid Point, who shows it with pride as something rare and interesting to botanists. It is a very insignificant weed to look at, like the common chamomile without its white rays.

The common chamomile is described in one of the botanies as "having leaves remarkable for their very disagreeable odor and used in making a horrible concoction called chamomile tea"! The rayless chamomile, on the contrary, surprises you with a delicious fragrance, suggesting pineapples and the tropics, rather than the west and the state of Oregon, from which place it is an immigrant.

No wonder that it spreads rapidly, if the bees and other insects are as fond of the flavor of pineapple as human beings are. I have never happened to see it in Massachusetts, although it may grow here also.

A. M. G.

---

### A MOTTO FOR THE SOCIETY THAT PROTECTS WILD FLOWERS

"Who robbed the woods,  
The trusting woods?  
The unsuspecting trees  
Brought out their burrs and mosses  
His fantasy to please.  
He scanned their trinkets, curious,  
He grasped, he bore away.  
What will the solemn hemlock,  
What will the fir-tree say?"

—Emily Dickinson.





## “Wyanoke”

The winds blow east, and the winds blow west  
As over the world they roam,  
Yet they know no spot on the broad earth's breast  
Like our own sweet woodland home;  
Where the waters gleam, and the pine trees sigh,  
And the pure bird-songs ring clear;  
We may wander far, we may wander nigh,  
There is never a spot so dear.

Oh, fair is the baby of high degree,  
And the child in the cottage low,  
But the little maid by our own pine tree  
Is the dearest thing we know;  
With the sweet surprise of her shining eyes  
And her tiny beckoning hand,  
She leads us on under rosy skies,  
Into childhood's fairy land.

So we who listen and watch and wait,  
And yearn for the forest lore,  
Go softly in by a golden gate  
That is open evermore;  
Whatever the eager brain may know,  
May our hearts be undefiled,  
And into the sweet wild woodland go  
With the faith of a little child.

—A. W. B.





THE JONES RIVER IN KINGSTON



A TULIP BED IN KINGSTON



IN THE HEARTS OF FISHES



FOR many years the vessels of Thebesius have been known to exist in the hearts of man; but it is only within the last decade ('98, F. H. Pratt) that these structures have been sought for and found in other vertebrates. It was after their discovery by Pratt, in '98, in the heart of a bullock, that the search for them in fishes was undertaken by me, under the supervision of Professor G. H. Parker of Harvard and Radcliffe.

Characteristic and easily obtainable species of fish were selected in *Carcharias littoralis* (shark), *Raja erinacea* (ray), *Amia calva* (dogfish). The work was carried on in the Radcliff laboratory and at Woods Hole.

The result of the research may perhaps be best shown by quoting the following extract from a paper published at the time, in the proceedings of the Boston Society of Natural History:

"When the blood vessels of the heart in fishes are compared with those in mammals, the most noteworthy feature is the striking simliarity between the two sets of structures. Vessels of Thebesius may open into the single auricle and ventricle of a fish as they open into the paired auricles and ventricles of a mammal; and their freer communication with the coronary veins than with the coronary arteries in the fish recalls the condition found in mammals. Morphologically the vessels of Thebesius in fishes seem to correspond exactly to those in mammals.

"The superficial veins of the heart in fishes are also much like those in mammals. A right, a left, and a median system can be distinguished, and in *Carcharias* the vessels representing these are almost identical with those in the mammalian heart. In only one important respect do the superficial veins in fishes differ from those in mammals; in fishes these veins open into the venous sinus, in mammals into the right auricle. When, however, it is remembered that the venous sinus in mammals becomes incorporated in the right auricle, this supposed difference disappears. There is then no reason for

supposing that the veins of the mammalian heart are not homologous with those in the heart of the fish. . . .

SUMMARY.

"1. Vessels of Thebesius have been found to open into the auricle of *Carcharias*, and of *Raja*, and into the auricles and ventricles of *Amia*. These vessels communicate more freely with the coronary veins than with the coronary arteries. They are homologous with the similarly named vessels in mammals.

"2. The superficial veins of the heart in *Amia*, and particularly in *Raja* and in *Carcharias*, are arranged in three groups corresponding to the right coronary vein, the left coronary vein, and the middle cardiac vein of mammals. These three groups of veins in fishes open into the venous sinus and thus agree in this respect with the similarly named mammalian veins which open into the right auricle into which the venous sinus has been incorporated. The above mentioned superficial veins of the fish's heart are homologous with those in the mammal's heart. . . ."

F. D. W.

THE SABBATIA

The sweet-briar rose has not a form more fair,  
Nor are its hues more beauteous than thine own,  
Sabbatia, flower most beautiful and rare!  
In lonely spots blooming unseen, unknown.  
So spiritual thy look, thy stem so slight,  
Thou seemest not from the dark earth to grow;  
But to belong to heavenly regions bright,  
Where night comes not, nor blasts of winter blow.  
To me thou art a pure, ideal flower,  
So delicate that mortal touch might mar;  
Not born, like other flowers, of sun and shower,  
But wandering from thy native home afar  
To lead our thoughts to some serener clime,  
Beyond the shadows and the storms of time.

—Jones Very.

THE WILD ROSE OF PLYMOUTH

Upon the Plymouth shore the wild rose blooms,  
As when the Pilgrims lived beside the bay,  
And scents the morning air with sweet perfumes;  
Though new this hour, more ancient far than they;  
More ancient than the wild, yet friendly race,  
That roved the land before the Pilgrims came,  
And here for ages found a dwelling-place,  
Of whom our histories tell us but a name!  
Though new this hour, out from the past it springs,  
Telling this summer morning of earth's prime;  
And happy visions of the future brings,  
That reach beyond, e'en to the verge of time;  
Wreathing earth's children in one flowery chain  
Of love and beauty, ever to remain.

—Jones Very.



## THREE CONCORD LETTERS

CONCORD, August 31, 1859.



Y DEAR FRIEND:—Ever since you were here, on days when the wonderful herbs came and on other days, I designed to send you the books you desired. But my absences,—of body, I mean,—my tasks, my trifles, and my epilepsies I think I must call them,—that scattering and effacing power,—have hitherto made my purpose void. . . . But if you sprain your foot, you shall find your head is sprained, and in a few weeks, all feet of all things seem to be sprained also. I hesitate much to send this volume of Landor, it pleases so few. I fancy sometimes it is an accidental taste of mine to like so well an author whom good readers find so dull. But Mr. Bradford said you named Landor, so I send the strange and offensive Richelieu Dialogue, which contains some of his best things. . . . On my return home I found my wife and children were in a state of very pleasant excitement under a large surprise party of pear-trees, apple-trees and rose bushes, which had burst in upon us from Plymouth. The visitors had already taken ground by the heel, in the garden, so that I could only hear the fame, but I have just now made an accurate inspection of the strangers, and find six pears of fame for me with the roses that delight my wife's heart;—and withal a cornucopia of seeds whose names might serve for so many poems. I send you my hearty thanks for these elegant gifts. I shall take immediate order that the new comers shall have a fair start beside their elder brothers in my orchard, and shall try the principle of emulation in pears. . . . Meantime life wears on, and ministers to you, no doubt, its undelaying and grand lessons, its uncontainable, endless poetry, its short, dry prose of skepticism, like veins of cold air in the evening woods, quickly followed by the wide warmth of June;—its steady correction of the weakness and short sight of youthful judgments, and its sure repairs of all the rents and seeming ruin it operates in what it gave—although we love the first gift so well that we cling long to the ruin and think we will be cold to the

new, if new shall come;—but the new steals on us like a star which rises behind our back as we walk, and we are borrowing gladly its light before we know the benefactor. So be it with you, with me, and with all. . . . What pleases me best in the letters is the generous trust they repose in me, and another's religion always makes me religious.

Your friend,

CONCORD, Aug. 17, '57.



R. WATSON:—I am much indebted to you for your glowing communication of July 20th. I had that very day left Concord for the wilds of Maine. but when I returned, Aug. 8th, two of the six worms remained nearly if not quite as bright as at first, I was assured. In their best estate they excited the admiration of many of the inhabitants of Concord. It was a singular coincidence that I should find these worms awaiting me, for my mind was full of phosphorescence which I had seen in the woods. I have waited to learn something more about them before acknowledging the receipt of them. I have frequently met with glow-worms in my night walks, but am not sure they were the same kind with these. Dr. Harris once described to me a larger kind than I had found, "nearly as big as your little finger," but he does not name them in his report.

The only authorities on glow-worms which I chance to have,—and I am pretty well provided,—are Kirby & Spence,—the fullest,—Knapp—Journal of a Naturalist, "The Library of Entertaining Knowledge," a French work, &c., &c., but there is no minute scientific description in any of these.

This is, apparently, a female of the genus *Lampyris*;\* but Kirby & Spence say that there are nearly 200 species of this genus alone. The one commonly referred to by

\*NOTE: From the Greek verb "to shine," and the noun meaning "tail."



English writers is the *Lampyrus noctiluca*; but judging from Kirby & Spence's description, and from the description and plate in the French work, this is not that one, for beside other differences, both say that the light proceeds from the abdomen.

Perhaps the worms exhibited by Durkee—whose statement to the Boston Society of Natural History, 2d July meeting, from the Traveller of Aug. 12, '57, I send you—were the same with these. I do not see how they could be the *L. noctiluca*, as he states.

I expect to go to Cambridge before long, and if I get any more light on this subject I will inform you. The two worms are still alive.

I shall be glad to receive the \**Drosera* at any time if you chance to come across it.

I am looking over Loudon's Arboretum, which we have added to our town library, and it occurs to me that it was written expressly for you,—and that you cannot avoid placing it on your own shelves.

I should have been glad to see the † Whale, and might perhaps have done so, if I had not at that time been seeing the "elephant"—or moose—in the Maine woods. I have been associating for about a fortnight with one Joseph Polis, the chief man of the Penobscot tribe of Indians, and have learned a great deal from him which I should like to tell you some time.

Yrs. truly,

*Henry D. Thoreau.*

CONCORD, May 1, 1870.

**D**EAR FRIEND:—Your bale of bounties came to hand on Thursday night, and the trees are all set about the lawn and hillside—a picture in outline which the seasons will gladly complete. . . . Your generous gift of pear trees is enhanced in value as in productiveness by being delivered punctually by the hand of Mr. Emerson. They were this day set by my own hands and those of our

\*NOTE: Sundew.

†NOTE: At least the word looks "very like a whale."

"Little Men," who have each adopted his, and associated with them the giver's name. I am not quite sure as to the soil and aspect of my grounds for friendliness to this fruit,—the paragon of all,—but promise myself a harvest in my day, with plenteous crops for the offshoots from our family tree. . . .

I found on my study table a sweet-scented parcel which I judge must have come from that seminary, the new Seed-House;—therein was the coveted sweet basil, caraway, dill, anise, sage, thyme. Not every gentleman's garden is thus supplied from Evelyn's with the sweet herbs that

"Gladly cure our flesh, because that they Find their acquaintance there."

Channing was here for the first time on Friday evening to tea, and gossip. He was in a particularly jocose mood, and came near perfect "abandon," yet still the Fates checked; he could only dissolve dreadfully at best.

I retain very pleasant memories of my recent visit to Hillside, and must pass that vale more than once before we climb.

Is it too late to set Scotch larches? The Bronsons have that blood in their veins, and one of them finds a spot which they would adorn becomingly.

Ever yours,

A. BRONSON ALCOTT.

THE FLOWERING OF THE PEACH

[IN TUSCANY.]

The slender peach-tree in the sun of March that charms it

Would gladly bloom, but sees the shining snows Covering the mountain bleak, chilling the wind that harms it.

And menace in its breath, still sharply blows. It fears too that its early flowering may offend The poplar tall, king of the mountain side, And the old fig-tree, that to guard its youthful friend,

Spreads like paternal arms its sheltering branches wide.

But one warm night 't is filled with restless fear,— A languor, a faint tremor, then a wild desire,— And then a long, long breath; the dawn is here! And lo! shining with dew like diamonds flashing fire,

Wrapt in a misty cloud of rosy flowers, It fills with hesitating sweets the early morning hours.

[From the Italian of Pastonchi, 1903 by E. W.]

"WHO in sad cities dwell,  
Are of the green trees fully sensible."



## IN THE NEWFOUNDLAND WOODS



OUR acquaintance with the "Log Cabin" came about in this wise: We were in Baddeck, and we said: "We will spend the last of our vacation in Newfoundland," to which the natives replied: "Impossible." But one of the summer people had heard of a man who went to Newfoundland and stopped at a place called the "Log Cabin," run by some Englishmen; couldn't say where it was, but it was most picturesque and romantic; why didn't we go? The information did not seem very definite, but we said we would, at least, go as far as North Sidney, where it was rumored we might find the steamer "Bruce," which would take us to Newfoundland, and we solemnly called upon the Fates to land us at the "Log Cabin" and took no more thought upon the matter.

We found no mystery about the "Bruce." She is a comfortable and seaworthy little steamer, that sails regularly three times a week from North Sidney to *Porte-aux-Basques*. On her we took passage, planning to connect with a steamer said to skirt the east coast, and turned in for a comfortable sleep. We were aroused next morning by a violent knocking, and orders to hurry, as we must take the train. To our leisurely response that they were calling the wrong people, as we were for the boat, we received the reply that the boat had sailed at midnight, there was no house where we could put up, and we simply must take the train for St. John's.

In much wrath, we tumbled into our clothes, gave our keys to the customs officer, and were bundled aboard the train, our bags and portmanteaux as disheveled as our tempers. An excellent breakfast, served aboard the train, presently helped us to enjoy the wild beauty of the scenery, rocky and bare at first, then marsh and forest and distant hills, a glimpse of waves rolling in on a white, sandy beach, and then the forest closing in again.

Meantime, we had explained to the conductor that we did not in the least want to

go to St. John's; we wanted to see something of the country. After some consideration, he remarked that the first place we would care to stop was the "Log Cabin," to which we replied, "It is Fate." Presently some Harvard men, with whom we had been chatting, reappeared, saying they had been riding on the engine, and counceled us to try it, advice which we immediately took. Ahead was the narrow line of track, on either side trees, now and then showing a glimpse of lake or stream, only to close about us again. All at once our whistle uttered a piercing shriek, the train stopped, and breathless, grimy, covered with cinders, we descended in response to frantic signals from the conductor, who was hurrying toward us. Here, it seemed, was the "Log Cabin," and he would put off our baggage; which he obligingly did, with the assistance of the brakeman and the Harvard men. Our stuff was strewed all over the car, but they gathered it up and threw it out to us, and I had a vague impression that some one tossed my hat out of the window as the train whirled off, and left us confronting a tall, handsome, immaculately dressed Englishman, whose manner of slightly weary indifference concealed anything he must have felt of surprise at our appearance.

There was the track, running through the woods, that showed on one side a glimpse of St. George's Pond, and on the other, a neat gravel path, a trim green lawn, a border of Shirley poppies, and the "Log Cabin," with its inviting veranda, and hospitably open doors. I did not wonder the man called it romantic. It was positively operatic in the unreality of its charm.

This impression increased rather than diminished on further acquaintance. There were fine antlers over the doors, and caribou skins before the brick fireplace in the living-room, and on the somewhat rude brick mantel the daintiest silver vase held some Shirley poppies; a rare bronze seemed to have been made for the orchid which brushed a Japanese ivory, and led the eye on to a few more curios from distant lands. Beata Beatrix, on the wall, contradicted the rustic simplicity of the furniture. From the window, one saw the line of the track cutting the







otherwise unbroken forest that came so close about the little clearing. Four miles away were a few lumbermen, but the nearest settlement was an hour by train.

Breakfast, which was served when you liked, and lunch, were informal meals; and at afternoon tea, you turned up, in a casual fashion, from woods or lake; but when eight o'clock came, the effect of roughing it was suddenly abandoned. You dressed, so far as a wardrobe planned chiefly for knocking about in a summer vacation permitted, and if you dined off trout, venison and preserves made of strange native berries, they were so served as to convince you, with the aid of softly-shaded candles, and flowers arranged by a master hand, they were but choice rarities of a dinner in town. Or was it our Englishman's conversation that made you imagine anything he liked, for the moment? In the morning, he had been picturesquely and skilfully felling a tree, as he directed his men; or perhaps he had been off in search of game, and returned later in the afternoon, a fine set of caribou horns on his shoulder, all woodsman and hunter. At dinner he was painting a waterfall on which he chanced, in words that scintillated with light and color; or when coffee was brought, he neglected it to read some favorite bit of Carlyle.

The "Log Cabin" is a starting point for fishing and shooting parties, and several came and were sent on to camps near lake or barren, while we lingered for the mere charm of the place, having, at the time, no wish to take life; and, if I remember, some scruples against that form of pastime of which we were completely ignorant.

After a time, however, we drifted on to Bay of Islands, a name, be it said, claimed by some sixteen or twenty miles of picturesque fiord, which is perhaps the most beautiful bit of the whole West Coast, not even excepting Bonne Bay. Here we fell in with a party of native hunters, who were going "caribou canning," and joining them by a sudden impulse, found ourselves camping beside the track in the wilderness; a couple of sectionmen, working on the railway, and a sparkling brook were our only neighbors.

Early next morning, I was alone. The

sectionmen had gone miles down the road on their trolley, the rest of our party had dispersed with rod and gun, or baskets for the wild blueberries that grew in sweet profusion. Suddenly I heard a noise as of an axe, and much excited chattering from the moose birds, and I started out to see who the intruders might be. There was a moment's pause, and then, through the blow-downs came crashing a magnificent stag, with wide-spreading antlers, followed by a young stag, a doe and last a little fawn. For some seconds we all stood motionless, staring at each other spellbound, then they bounded off, and I could hear them splash through the brook and scramble up the further bank.

I saw a dozen caribou before lunch that day, the last a single, fine stag, that trotted down the track and sprang lightly into the forest at sight of me. That afternoon, a drove of about twenty, including does and fawns, crossed the brook a little below us. But this is for the "Nature Number," so I may not tell of the success of the hunters, and how they canned venison there in camp, nor should I hint that one of us fell from grace, and has now above the fireplace a set of caribou horns, the result of a successful shot.

C. F. L.

ICE-FLOWERS, or hoar-frost in the Engadine. In connection with our ice-bulb-bearing *Helianthemum Canadense*, it is interesting to note the hoar-frost effects observed at St. Moritz, Switzerland. At times a fog hangs suspended during the night, and the next morning the entire valley is a glittering fairyland, the rocks being covered with flower-like forms of Jack Frost's workmanship. Professor Tyndale, who explains these exquisite shapes in his "Forms of Water," was the first to call these beautiful crystals "ice-flowers."—"Country Life."

"The smooth, sweet air is blowing round,

It is a Spirit of hope to all;

It whispers o'er the wakening ground,

And countless daisies hear the call:

It mounts and sings away to heaven,

And 'mid each light and lovely cloud;

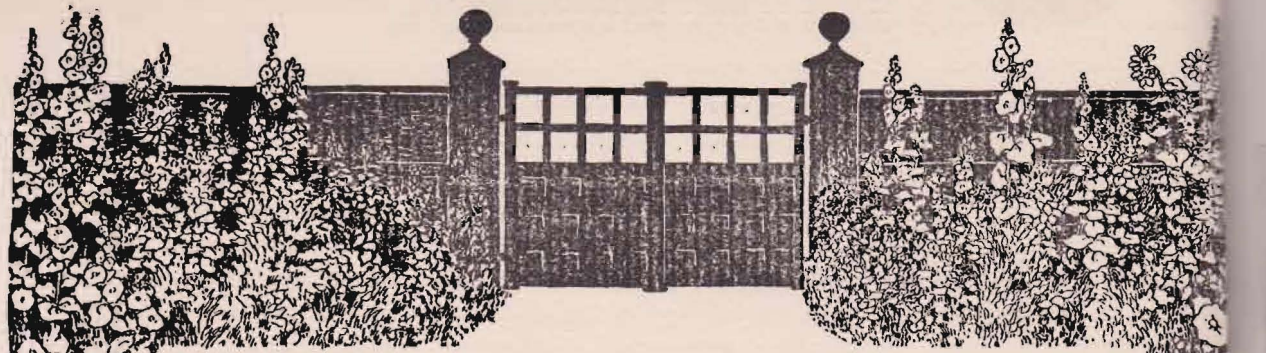
To it the lark's loud joys are given,

And young leaves answer it aloud.'

"The Sexton's Daughter."

—John Sterling.





## IN PRAISE OF HERBS

IN this "so-called twentieth century" of ours, when quaint fashions in gowns make even the square shoulders of the athletic sweet girl graduate to slope under drooping laces; when the wide brim of the poke-bonnet casts its shadow before, and a faint rustle as of crinoline is heard in the land; when we are made to sit bolt upright in "old-fashioned" straight-backed chairs whose black mahogany is eaten not with the slow tooth of time nor yet by the silent worm, but skilfully riddled by the swift shot that penetrates but to deceive; when classic sun-dials in box-bordered gardens seem to count the hours of a bygone century, among the Conserve roses and spicy pinks dear to early writers of romance; this year of grace, 1904, in short, seems a fitting time for the revival of the humble herbs, the lavender, the lovage, the thyme, the balms, the sage, the rosemary, the rue, the mints, the ambrosia, of all that store of aromatic perfumes that have helped to sweeten life through the centuries. Poets have sung their praises since time was, since "Adam dolve and Eve span," and yet they are lacking in many a well-appointed garden. How easy it would be to bring about this revival! A small plot of ground, not too sunny, nor wholly in the shade, must first be well tilled; then send for so many packets of seeds as you choose of your favorite scents and savours; let your drills be two or three inches deep and eighteen inches apart, and the soil well pressed down over the seed sown; then hope for "the small rain upon the tender herb," and when the tiny seedlings shine out upon the dark soil, "down on your knees and thank Heaven fasting" for the joys that shall surely be yours in the weeding, the tending, the blooming and the drying thereof.



"Why should man die, so doth the sentence say,  
When sage grows in his garden day by day?"

—Philemon Holland, 1649.





In a New England Herb-Garden

*T*he thyme is pink,  
And lavender's blue;  
Rosemary's sweet,  
And so are you!



THE HELIANTHEMUM CANADENSE OR FROST WEED



WE feel justified in printing in full this somewhat lengthy and very careful study of a curious plant, as it has never before been published. Its quaint and studied phraseology seems to bring before us, after nearly a century, the figure of this reverend searcher after the oddities

of Nature's truth, as he pored over his authorities, French and English, by the dimly-burning midnight oil. And this, after braving the dangers of the then lonely Sandwich road where robbers might threaten the solitary rider with treasured specimens in his saddlebags, and wolves howling as he rode by, pondering over the laws of physics as known in his time and generation.

The *Cistaceae*, or Rock-rose family, include the *Helianthemum*, or rock-rose, the *Eradonia*, or poverty-grass, the *Lechea*, or pinweed. The subject of the following sketch, *Helianthemum Canadense*, or Frost-weed, is thus described by Gray: "Petal-bearing flowers solitary; the small secondary flowers clustered in the axils of the leaves, nearly sessile; the yellow flowers open only once, in sunshine, and cast their petals by the next day; stems at first simple. Corolla of large flowers one inch wide, producing pods three inches long; pods of the smaller flowers not larger than a pin's head. Late in autumn, crystals of ice shoot from the cracked bark at the root, whence the popular name."

OBSERVATIONS ON A PECULIAR MODIFICATION OF FROST, OCCASIONALLY APPEARING IN THE *CISTUS CANADENSIS*.

Read before the Friday Evening Club, Boston, 1818, by Dr. Ezra Shaw Goodwin.

In Dr. Reid's chapter on the question: "What is to account for a phenomenon in nature?" he instances the explanation, given by Galileo, of the uniformly accelerated celerity of falling bodies, proving its necessary consequence from the known laws of gravity.

The example is happily chosen, and there

is a considerable class of physical phenomena susceptible of an equally satisfactory reference to incontrovertible general laws. But there remains an unconquered tribe of appearances not reduced to the yoke of system. For a time they seem to be, as Kepler says of Mars, our prisoners; but again they escape, and baffle the renewed labours of the philosopher.

This is more especially the case in meteorology, where the multiplied appearances, their rapid and varied succession, and the influence of numerous latent means of operation, in some instances combined, in others acting separately, by turns in collision and in concert, all tend to perplex and confound the observer and the experimentalist, and to embarrass the best conceited theory with numerous deviations and exceptions.

"To show how we ought to distrust the most plausible explanations," says M. Brisson, "I will state an example. Let us suppose that snow should fall in summer and hail in winter, contrary to what actually occurs, and that we were to assign a reason. We should say we have snow in summer because the particles of vapour of which it is formed have not opportunity to become congealed completely before they reach the earth, on account of the warmth of the atmosphere. On the contrary, in winter the air near the earth becoming extremely cold, congeals, and hardens the aqueous particles to a high degree, and thus hail is produced. This would be an explanation which would be currently received and might even pass for demonstration. Yet it would be untrue."

Shall we, then, inquires M. Brisson, venture to explain the phenomena of nature? I answer, we shall doubtless persist in the attempt, and shall continue the pursuit from the uneasiness we feel, until a satisfactory connexion is established between any perplexing and anomalous fact and our previous stock of information.

Thus curiosity is kept alive, habits of attentive observation and reflection are promoted, and, if we do not obtain the desired certainty, some improvement is still to be seen in the habits and temper of our minds, for the chase of Pan can never be entirely fruitless.



With these remarks, I would venture to offer, as my contribution for this evening, some considerations on a meteorological phenomenon of trivial importance, but which has happened to engage a degree of my attention, probably more than ought to have been bestowed upon it.

In the year 1794, when I lived at Plymouth, walking in the woods about two miles from the town, on a cold, frosty morning, in the latter part of November, I noticed a new and beautiful appearance on some low plants near the edge of a grove of Oaks, which arrested my attention.

The stems of the plants were surrounded near the middle, *with a bulb of perfectly white ice*, of a spongy texture. The great number and uniformity of these icy sheets produced an agreeable appearance, in a distant view; and the interest excited by the novelty was not diminished on a nearer examination. I took up several of the plants which were thus adorned, and found they were all of the same kind; and on breaking some of the bulbs it was perceived that in all of them the thin bark of the plant was ruptured under the bulb; the lacerated portions of the bark were bent upwards and downwards in several strips, giving support to the delicate icy garment, which when entire appeared in wreaths like locks of fine wool or shreds of cobweb muslin surrounding the stalks of the plants. The bulbs were nearly of equal dimensions, about the size of a large English walnut.

The day was bright and serene, and I carried home a number of the plants with the icy mantle adhering to them, and had the pleasure of showing them to some of my friends before they melted. I found only one person, Dr. Zaccheus Bartlett, who had ever noticed a similar appearance. He had seen it, if I recollect rightly, more than once, and from his description of the plant, it corresponded with the one which I had observed.

In reflecting on the subject I was led to an inference which has since been confirmed, that the phenomenon was *peculiar to the plant in question*. I became solicitous to ascertain what plant it was, but was unable to satisfy myself in this particular until many

years had elapsed and the subject had been dismissed from my mind, when a casual conversation with a friend again suggested it to my consideration.

In 1814, being on a visit at Sandwich, Dr. Leonard of that place inquired of me if I had ever seen a plant which late in autumn or early in the winter was often found surrounded with an *icy bulb*. The question instantly revived the impression made by my fair *incognita*, and I soon found from the detailed description given me by Dr. Leonard that we had both noticed the same appearance and on plants of the same kind.

I learned from Dr. Leonard that it had not escaped the notice of the Indians in that vicinity. Some of that race have a popular reputation for skill in roots and herbs which they administer in decoctions or other modes of preparation, to the sick who have confidence in their prescriptions. They give to this plant the significant name of *catch-em-frost*, and from a whimsical association of ideas it is uniformly recommended by them as an excellent *cooling* medicine!

This is a very pardonable indulgence of fancy in these children of nature, for such wild analogies are not without precedent even in the school of science. By some medical sages of former days plants with yellow flowers were prescribed as remedies for jaundice; the red were to arrest hemorrhages; the *anacardium occidentale*, from its reniform figure, would relieve disorders of the kidneys, and *brassica capitata* was a sovereign remedy for the headache!

Dr. Leonard, in one of his professional excursions, collected some of the plants for my inspection. They were out of flower and the seed vessels were formed. I brought some of the specimens to Boston, and shewing them to our venerable and very intelligent friend, M. Carrea (?), then here on a visit, he pronounced the plant to be the *Cistus Canadensis*. Afterward, in the same year, coming from Plymouth to Boston, I had the satisfaction of seeing another instance of the phenomenon first mentioned. It was in Duxbury woods, early in December, in the forenoon of a cold and bright day. I brought home with me a number of the plants. They were precisely similar to



been given me by Dr. Leonard, and as far as I could rely on my recollection, to those I had noticed twenty years before at Plymouth. All of them had a disruption of the bark, under the frosty bulb, such as I have before described. I marked the place of their growth, and in travelling past the spot since that time, in the summer season, have noticed the *Cistus Canadensis* in flower, and in great abundance.

This plant belongs to the Class and order *Polyandria monogynia*. Professor Bigelow says that after the tender and deciduous petals have fallen it has the appearance of *Leucis major*, for which it has been mistaken. Its habitat is of wide extent—from Canada to Georgia.

This species of *Cistus* was first noticed by Peter Kalm, and from his description or from specimens furnished by him, was characterized by Linnæus and inserted in his *Species Plantarum*. It is not probable that the peculiar manner in which it is affected by frost was observed by Professor Kalm, for it is not mentioned in his "Travels in North America," which abound in observations in Natural History.

In attempting to explain the phenomenon we are naturally led, at first view, to consider it as a modification of hoar-frost, which is generally admitted to be frozen dew. For an explanation of dew and hoar-frost we cannot, probably, have a better guide than Dr. Wells in his late ingenious essay. Referring to the leading idea in his explanation of the process of Dew, it would appear that the lacerated and extended fibres of the *Cistus Canadensis* would be well adapted to acquire a deposit of the aqueous contents of the surrounding atmosphere. The heat which they might radiate would admit of no ready supply from the earth; for the whole plant, when the phenomenon appears, is in a dry and perished state. It would remain to be explained, however, why the hoar-frost upon this particular plant should assume an appearance so strikingly different from what it exhibits in the deposits on any other object.

On other plants it appears as a thin rime, on the surface, and is never seen, I believe, extended in a cobweb-like wreath, from one

part to another, or from one plant to a neighboring one. On the *Cistus Canadensis* there is an icy garment of several connected folds, extending from the tips of the lacerated and expanded portions of the bark to the stem of the plant. I have reason to believe also that this appearance is usually manifested at a lower temperature than when hoar-frost is most abundant. Such, at least, was the state of the air in reference to temperature in the two instances which fell under my observation.

In this remark I am confirmed by a communication from a friend who has recently observed the appearance. From these circumstances I have been led to consider whether the appearance in question will not admit an explanation by a reference to some other known laws relative to caloric, air and moisture than what are conceived as having operation in the ordinary production of hoar-frost.

In pursuing the inquiry the following reflections have occurred: It is a general law that expansion and rarefaction of air occasion cold, while condensation and compression generally produce heat. A given portion of condensed air, liberated from its compression, and assuming what may be denominated its atmospherical state, requires an additional portion of caloric, which it receives from the surrounding bodies. This produces cold at the expense of those bodies, and renders the portions of contiguous air less capable of sustaining the water which it previously held in solution in the form of vapour.

"Let a portion of air contained in the receiver of an Air Pump remain a sufficient time to become saturated with water by its contact with the moistened leather or otherwise; and let the pump be worked, with brief intermissions, and if the apparatus be so disposed that the receiver shall be placed between the light coming through a window and the observer, it will be perceived that the air of the receiver, which was before transparent, because the water which it absorbed was held in solution, loses its transparency at every stroke of the piston, and there appears a cloudy mist falling at last in globules on the plate. The cloud is renewed at every



stroke of the piston, until the exhaustion be carried so far that the water evaporates from mere diminution of pressure."

An experiment made by Professor Pictet, at Geneva, is thus related in the *Journal de Physique*, 1798: "The machine employed for compressing air," says the journalist, "is well known. Professor Pictet informs us that he has observed the air thus employed produces extreme cold, when the cock is opened to give it vent. The more readily to demonstrate this, he put a quantity of water in the compressing vessel. When the air rushes out it escapes with a hissing noise and carries with it a part of the water. At the close of the operation it is perceived that the water adhering to the cock is converted into ice."

"For an explanation of this phenomenon we may suppose that a portion of the water carried along by the air is reduced to the æriform state, or state of vapour. But this cannot take place without there being combined with the vapour a considerable portion of caloric. The drops of water left behind are thus so deprived of caloric as to be congealed."

It is in the same manner that the prompt evaporation of ether placed under the bulb of the thermometer causes the mercury to descend.

In the same Journal, for the year 1799, there is an account of an amusing exhibition occasionally given at the mines in Schemnitz, for the gratification of visitors, which is related and explained by M. Baillet, and which depends on similar principles:

"In the mines of Schemnitz, Hungary, they use a machine called '*a eau et a air*,' invented by Hall in 1755, resembling in principle the famous fountain of Hero. It consists of a column of water forty or fifty metres high, which compressing the air of a reservoir pressing another volume of water below raises the latter from the bottom of the mine. At the end of the operation,—*i. e.*, when the compressed air replaced by the water of the upper column has passed into the lower reservoir from which it has expelled and elevated the water, if a cock be opened to give vent to the air, and there be presented at the opening a hat or a cap of one of the miners, the aqueous vapour

dissolved in the compressed air is instantly deposited in the hat in the form of a very white and compact ice, much resembling hail and which is easily detached. This ice soon melts, the interior of the mine being constantly at a temperature of from 54 to 55 degrees Fahrenheit."

This phenomenon takes place at all seasons. It is to be observed that the air issues out with great force and velocity, so that if the workman who presents the hat to it were not supported, it would be impossible for him to maintain his position. It is further observable that when the cork is only partly opened the ice is more compact than when the opening is entire. This fact has been confirmed to me by those of my associates who have been at Schemnitz. Jars who first reported it in 1758, gave no explanation; he merely suggested that it is perhaps in this manner that hail is formed. Philosophy was not sufficiently advanced at that period to furnish a reason for the fact.

\* \* \* \*

EXPLANATION.

We are indebted to the new and elegant experiments of Crawford and Lavoisier for an easy explanation, by the theory of specific heat or capacities for caloric.

I. Air condensed to a fifth or even a sixth of its original volume loses in the act of condensation a large portion of its caloric, which the water in the reservoir and the reservoir itself rapidly absorb.

II. This air must dissolve a greater portion of water than in its ordinary state of rarefaction.

Lastly, the air, though containing less caloric than before, is in equilibrium of temperature with the surrounding bodies.

These three facts will be readily admitted by all philosophers.

When the cock is opened, what happens? The compressed air expands and resumes the volume which it had under the pressure of the atmosphere. Its temperature is instantly lowered. It cannot hold so much water in solution as it could in its state of condensation, but deposits it; and as it requires a greater quantity of caloric in this new state of rarefaction, it borrows it from the vapour of the water which it abandons and



which it deposits in the form of ice on all surrounding bodies."

The application of these experiments and of the theory by which they are explained to the subject under consideration will be readily perceived.

Let us suppose the plants, when entire, to contain imprisoned air in a condensed state, between the bark and the wood, and the enclosed air to be suddenly liberated by the disruption of the bark from cold. The expanding air would be greedy of caloric, and would at once imbibe the requisite portion from the bodies which would most readily part with it. This would be furnished from the immediately surrounding air, or from the water held by it in solution, or from both; and the aqueous vapour in the surrounding air would assume the form of ice and attach itself to the fragments of the bark. A portion of the production may be from the aqueous vapour held in solution by the imprisoned air and carried along with it.

In the exhibition with the machine at Schenmütz, M. Baillet considers the whole deposit of ice to originate from the water held in solution by the air which had been compressed. The same remark applies to the experiment made by Professor Pictet, and to the one with the air-pump; but the operation of the principle suggested in their explanations is not limited, I conceive, to this condition. From the same theory we may explain the frosty deposit in the interior of houses by the edges of keyholes or at crevices in extreme cold weather, in the production of which the aqueous vapour existing in the air and a modification of caloric are alone concerned. At such a season there is a great difference in density and temperature between the air in the house and the external air. The latter rushing in at the keyhole or at crevices experiences a sudden expansion, and to capacitate it for its new condition requires a supply of caloric which it imbibes from the objects with which it is in contact, thus producing a refrigeration and the frosty deposits that have been mentioned.

It may be objected that the quantity of ice usually seen surrounding the *Cistus Canadensis* is too considerable to be derived from

the portion of atmospheric air which may be supposed to be affected by the process that has been imagined. But it is not necessary to conclude that the whole icy bulb is the immediate product of the explosion. It is sufficient to say that a considerable deposit is by such means effected, enough to form a single connected sheet of extreme tenuity around the plant, to which subsequent deposits are attached during the night, as in the ordinary production of hoar-frost. The uniform marks of disruption of the bark under all the bulbs of this description first suggested this mode of elucidation of the phenomenon.

My intelligent friends will decide whether it be conformable to the fundamental rules of our great Master in Philosophy: Natural effects of the same sort are to be accounted for by the same causes.

No more causes nor any other causes of natural effects ought to be admitted but such as are true and sufficient to explain the phenomena.

I am aware that a more perfect inquiry into the circumstances attending the copious deposit of frost on the *Cistus Canadensis* ought to precede any theory on the subject. If it should be found, for instance, that this appearance is seen repeatedly on the same individual plant, we must reject the explanation which has been here offered. I have not been able to ascertain whether this be the fact. If it be so, however, we expect that a similar exhibition would have been noticed in the season of hoar-frost in the spring, as well as in winter or late in the autumn. It has only occurred to my observation in the latter seasons, and I have not heard of its having been seen by any one in the spring.

It may be said that the plant would be destroyed or so mutilated by the severities of winter as not to afford the same slender ramifications of ruptured bark to radiate heat and to furnish a support for the frosty deposit as in autumn; but on examining the plants in their place of growth in summer I recollect having seen the old stems standing by the side of the new growth and with the appearance of ruptured bark remaining.

The *Galanthus nivalis*, snowdrop, remark-



able for its early escape from winter and which the Indians might call "no-catch-em-frost," has often been the theme of the poet. None probably have been more fortunate in poetic allusion to this harbinger of spring than Mrs. Barbauld.

"As Flora's breath, by some transforming power  
Had changed an icicle into a flower;  
Its name and hue the scentless plant retains,  
And winter lingers in its icy veins."

If Dr. Darwin had been informed of the characteristic habit of the *Cistus Canadensis*, it might have figured in his "Botanic Garden" perhaps, in some such lines as these:

"By Ganges' stream, when eastern chief's expire,  
See their wan partners court the funeral fire;  
Nymphs, ye beheld Canadian Cistus weep  
Where, cold in earth, her *many husbands* sleep;  
In night's chill air, beneath the moon's pale gleam  
Wait her own exit ere the morning beam,  
With snowy shroud her blighted form invest,  
Sigh to the winds, and calmly sink to rest."

### THE JOYS OF THE ALPS

[By an Unappreciative Tourist]

The joys of the Alps have never a check,  
With a tra-la-la and a fal-lal-lal,  
With joy you climb till you seem a speck,  
With joy you tumble and break your neck,  
Then with tra-la-la and with fal-lal-lal  
They will give you an elegant funeral  
In the Alps, the Alps so gay!  
And the deep crevasses are most polite,  
They're open all day and they're ditto all night,  
With a tra-la-la and a fal-lal-lal  
They will take you in with your bags *et al.*  
And they all complain,  
With the deepest pain,  
That nobody seems to "drop in again."  
With a hip-hooray  
And a roundelay  
In the easy and breezy and rollicking way  
Of the Alps, the jovial Alps.  
Oh, what is so fine as an Alpine dawn?  
With a tra-la-la and a fal-lal-lal,  
When you're roused from sleep in the earliest morn  
By scandalous notes from a dissolute horn,  
With its tra-la-la and its fal-lal-lal,  
Awakening the echoes through "Berg" and "Thal"  
In the Alps, the Alps so gay.  
And you shiver and watch for a pinkish patch,  
And fervently cuss the whole shooting-match  
With some bad tra-las and profane fal-lals  
For the Jungfrau stern and the other old "gals."  
Then you sprint for bed,  
When the East grows red,  
With your fingers stiff and your toes all dead.  
While you loudly praise  
(Mid a brimstone haze)  
The happy and snappy and picturesque ways  
Of the Alps, the jovial Alps.

—T. Ybarra.

### A RIPPLE FROM THE TOWN BROOK

["Truly we public characters have a tough time of it."—Hawthorne's "Rill from the Town Pump."]



HOW things have changed along my banks, in the last three hundred years! In the old days, when the Indian Sagamores paddled their birch bark canoes so swiftly from Billington Sea—it was called Fresh Water then—down to the ocean, I flowed silently over my sandy shallows and stole quietly past my one big boulder into the broad meadow, without so much as startling the loons and wood-ducks nesting in the willow-weed and hazel bushes round Deepwater. In the fresh morning silence you could even hear the pond lilies opening to the sunlight! Then the fallow deer came to browse on the young sassafras bushes and the sweet blueberry blooms—swamp ones!—and quench their thirst; while they taught their frisky little fawns all the ways of the friendly forest. How sweet and shy they were!

Under the grove of Tupelo trees, where the graceful foot-bridge spans my stream now, the blue herons nested, and from time to time a great eagle soared away over the dark pine tree where the fierce little eaglet forever screamed for more food, more food! The Indian squaws brought their cunning little papooses to dig in the sand and bathe in my waters, while they dug for sweet ground-nuts, and caught pickerel, perch and bass. They must have made many a good meal just out of my stream, especially when the alewives came up in great silvery schools. Truly

"Men may come and men may go,  
But I go on forever."

Now the plow turns up the arrowhead that killed their deer, and only grey circles of powdered quahog and clamshells show where the red men feasted in their wigwams along my banks. For there came a race of white men from over seas, who learned from the Indians to plant corn and dig clams. The stone arch bridge near the end of my course marks the spot where the chief Massasoit with sixty men in his train met the



palefaces on Strawberry Hill and made a treaty of friendship with them. They would have fared hardly in the wilderness without that kindly teaching from the men they called "salvages"! One of the newcomers, Francis Billington, discovered my headwaters, and gave them the name of Sea or Zee, perhaps, as he had heard lakes called in Holland. And on my banks the first water-mill was built. There they "beat and pounded" the corn I had helped to water. This was some thirteen years after the first planters came, and had learned to make samp, succotash and no-cake of the Indian corn. At one time they well-nigh starved to death, and when the last store was divided among them, each one's share was but five parched corns. But better days came, though it was hard to keep the wolf from the door of these hard-working settlers. They thatched their roofs from the rushes growing on my banks, and their washing-days made me many a busy blue Monday! Their little children were christened from a sacred basin filled from my spring, and many a time have the men with now world-famous names come to me for comfort in the heat and burden of those early days of their trial. At the grist-mill the skins of wolves were exchanged for corn ground by the John Jenney whose name is still preserved, and who was once "presented for not grinding corn well and seasonably." Gardens were planted along the meersteads, the island in the lake was laid out with apple orchards, and water was carried to the town "in logs" to supply the growing needs.

Cranberry bogs have been planted along the shores of the pond, and my springs and I are put to it, summer and winter, day and night, watering and flooding acre after acre. Now factories four stories high are reflected in my depths, and I must confess the electric lights are very becoming! They have built up dams to hold me back, and set great waterwheels for me to turn; all my peaceful quiet is made to throb with noisy machinery. No more famine, though, and no more leaky rush-roofs. Plenty of work and plenty of wages and plenty of breakfast foods! Solid houses of stone and brick are creeping nearer and nearer to my sources. My trees and

wild flowers and nesting birds are protected now, that the great Public who drive and walk on my good roads and quiet paths may be sure of shade and beauty at every turn. No need to name the one name that has made this possible, for it is on the lips of everyone who walks and drives around my lakes, though the figure my flowers and trees knew best no longer comes to look after our welfare. He has left us in the best of hands!

"And now listen, for something *very important* is to come next." I said at *every* turn, but there is still one marked "Dangerous Passing!" What a frightful sign to meet with, when all else is so safe and well-cared for! But close by this old wooden bridge a new stone bridge is almost finished, and soon you may cross my current here in safety. How soon? Ah, my Courteous Readers, my gentle Lovers of Nature, that depends entirely upon your purse-strings or your heart-strings! I hope it will be before your pet horse lames his ankle on the bridge marked "Dangerous"! We must work hard to get the filling-in and the stonework finished before any accidents happen! And if you open them wide, wide, those treasure-houses above-mentioned, I will ripple you out a design for a bronze tablet in honor of my Founder. Then we will summon all who love the woods—a goodly throng it will be—to meet under the shade of my fairest trees; you may fill your birchen goblets where I run coolest and deepest, and join me in this toast:

"Long life to Morton Park and speedy success to the Town-Brook Bridge!"

TO THE SABBATIA

Upon the margin of a reedy pond,  
 Held in the hollow of low, rounded hills,  
 Where Silence like a presence broods and thrills  
 I found Sabbatia. As a lover fond  
 Flying, the mistress of his heart to greet,  
 Forgets the world in reading her sweet eyes,  
 And cries: "For me God makes a Paradise!"  
 So sitting happy at Sabbatia's feet  
 Bathed in the sunshine of her rosy smile,  
 I murmured: "Twas for me she grew so fair!"  
 For answer lightly glided here and there  
 A blue-winged dragon-fly. A bird the while  
 Trilled one clear note. Tall rushes stirred, and  
 I caught the glisten of the sundew's tear.  
near

—Emily Forman.



## TABLE MANNERS OF THE TREE SPARROW



THOSE who are bird lovers and bird observers will be interested in the following observation of the manner in which the tree sparrow procures the seed from the ripened seed pods of the evening primrose and other such plants. Jan. 10th, last, while out walking, I saw at a little distance from the road, a goldfinch and a tree sparrow, feeding from some primrose stalks that had not been covered by the snow. While the goldfinch climbed dexterously about the stalks, extracting the tiny seeds in the usual clever way, the tree sparrow I noticed adopted an entirely different method. Alighting on one of the stalks, with wings closed and head erect, he gave it such a vigorous shake that the seeds were scattered on the snow beneath. Immediately flying down and collecting the fruits of his exertions, he flew to another stalk and repeated the operation as before. This was done about ten times in the four or five minutes I stood watching. While the sparrow seemed to be outdoing his companion in the race for a breakfast, the latter showed no disposition either to imitate him or interfere. This being the first time I had seen the tree sparrow feeding in this way, I was much pleased when, two days later, I saw another proceeding in exactly the same manner. Both were feeding on the evening primrose. The latter was at a considerable distance from the first, leaving little doubt that they were two different birds. The tree sparrow is one of our commonest winter birds, arriving in Massachusetts about the last of October, and leaving for the north again about the last of April. While with us they are found more or less in flocks, and their merry twitter is very acceptable music at that bleak season of the year. The strong resemblance between the tree sparrow and the chipping sparrow has given the former the name of "winter chippy." *W. H. C.*

This calls to mind the plentiful lack of "table manners" once observed in a greedy

robin, ever after known as the "Artful Dodger." Five eager little brother and sister robins had opened wide their gaping beaks, ready for the luscious feast of worms and strawberries heralded by their parents' approaching wings. Our "Artful Dodger," first in line, seized the first beakful, and—as it is written, the first shall be last—was ready again at the other end of the row to swallow the last morsel as well. This was repeated several times, evidently with malice aforethought.

\* \* \* \* \*

Speaking of porcupines, the son of a German pastor at Göttingen, and himself a teacher of Greek, gave me the following "Memory Gem": "You have no porcupines at home, you say? Ah! What you miss! They are at times so wonderfully entertaining! Often have I sat at twilight hour in our cool green orchard, watching the mama and papa porcupine rolling their sharp spines into the ripe red apples. When they have thus made fast three or four, then they walk slowly away, carrying the healthgiving food home to their dear little ones."

### LINES ADDRESSED TO ANN HATHAWAY

"Would ye be taught, ye feathered throng,  
With love's sweet notes to grace your song,  
To pierce the heart with thrilling lay,  
Listen to mine, Ann Hathaway.  
She hath a way to sing so clear,  
Phœbus might, wondering, stop to hear;  
To melt the sad, make blithe the gay,  
And nature charm, Ann Hathaway.

She hath a way,  
Ann Hathaway,  
To breathe delight, Ann Hathaway.  
When envy's breath and ranc'rous tooth  
Do soil and bite fair worth and truth,  
And merit to distress betray,  
To sooth the heart Ann hath a way;  
She hath a way to chase despair,  
To heal all grief to cure all care,  
Turn foulest night to fairest day,  
Thou know'st, fond heart, Ann hath a way.

She hath a way,  
To make grief bliss, Ann Hathaway."

—*Author Unknown.*

Sent by *M. S.*

"NO PAMPERED bloom of the hot-house chamber

Has half the charm of the lawn's first flower."

—*Bryant.*





*In the Garden of Ann Hathaway's Cottage*



“A RATTLIN’ GOOD TALE”



HIS story was told to Professor W. W. Goodwin by Dr. William H. Furness, when 92 years old. He had just heard it himself, and told it with great glee.

The ring-master in a circus once told a story of his brother, who, as he said, was very fond of all sorts of animals, while all animals were very fond of him. One day he was walking in the woods and saw in the road a rattlesnake pinned to the ground by a forked stick which held it fast, so that it could not move its head. He released the snake and left it in the road, not wanting to injure it. The grateful snake followed him home, and coiled itself on the door mat outside the front door. After a while he took it in, for he was very fond of animals, and soon it became one of the family, and at last slept at its benefactor’s feet, on his bed.

One night he was awakened by a slight noise, and saw by the dim light a man moving slowly across the room towards an open window. Soon he saw that the snake was coiled round the man and was holding its fangs close to its throat, all the time pushing him slowly towards the window. He watched this interesting process quietly, but with some anxiety, for he was very fond of animals. At last, when the window was reached, the snake put out his tail, and sprang his rattle for the watchman.

A CALIFORNIA CAMPING EXPERIENCE



AFTER an all-day hunt, we arrived in camp at sundown tired and hungry. In another hour we had eaten our frying-pan bread, broiled venison, and boiled beans, and were resting around the camp-fire telling stories. The sky was becoming overcast, and the wind was rising.

We saw that a mountain storm was approaching. We must find the best shelter available. We moved our blankets

from under the “clear, star-sown vault of heaven” to a place under a large pine tree. But were we not risking our lives to keep from getting a little wet? For above us were the heavy branches of the pine tree, and on its branches were the large green pine cones, each weighing ten or fifteen pounds. But the fear of getting wet outweighed the danger, if we really thought there was any. We spread our blankets on the ground and each took off his coat and folded it for a pillow. Soon we were both in bed with rifles along side. Each coat was folded to make the pillow as high as possible, and between our heads was only two feet of bare ground.

The next we remember, both were awake. The night was black except for a flash of lightning now and then. The wind was howling through the trees and the rain at hand. Now it was that we were thankful for even so much shelter. Then something struck the ground with a thug just between our heads. We knew what it was, and what we had escaped. The wind had blown loose a ten pound pine cone. It fell forty feet to the ground. Had it struck either of us, it would have been sudden death. We both sat up, looked at each other, and at the place where the cone had struck. Just then came a bright flash of lightning. Our eyes were on the pine cone. Something seemed to be moving under it; but it was dark again. One lit a match; the other lifted away the pine cone. There lay one who had taken shelter from the storm under the tree just between our heads. The blow of the pine cone had killed him. He was coiled in a position ready to strike anything that moved toward him,—a large diamond rattlesnake.

R. P. S.

“THE DEAREST child of *Faith* is *Miracle*.”  
—*Faust*.

DO CANARIES TALK?—We have an interesting record of two pet canaries, each with a vocabulary of some twenty-four words, the consonants being sounded with greater distinctness than the vowels. Their language must be far more musical than that of our talkative parrots!



## LOTOS-TIME IN JAPAN— SCRIBNER'S SONS, N. Y.



IN Mr. Finck's interesting book on Japan, after speaking of the difficulty of reproducing the beauty of this wonderful flower, he writes: "It is difficult to imagine what the Japanese would do without the lotus. In their art it is almost as frequent a subject as Fuji (the sacred volcano).

The children use the big leaves for sunshades, the seeds for marbles, or to eat, while the adults would answer the conundrum, "When is a pond not a pond?" with, "When it has no lotus in it." . . . True, it is an importation from India, and does not grow wild in Japan; but like other foreign things which the Japanese adopted centuries ago, they have made it peculiarly their own. . . . One of the loveliest bequests of Buddhism to Japan is the symbolical idea that as this exquisitely pure and fragrant flower grows out of the mud of a pond, so the human mind should rise above earthly conditions into the pure regions of spiritual life. The images of Buddha are usually seated on a lotus, and with the worship of Buddha the adoration of the lotus flower has impressed itself on the whole nation. . . . I predict that early in the twentieth century lotus ponds will be as frequent in America as in Japan. It is perhaps not generally known that there is a species of lotus which grows wild in America, but it is shy and rare, and does not flourish so well as the imported lotus. Eight years ago an attempt was made to acclimate the Japanese lotus in the ponds of Central Park in New York. Ignorant, apparently, of the fact that it is a very hardy plant which flourishes even in the Siberian climate of Yezo, the gardeners for a few years carefully housed the roots in winter. Now they allow them to remain undisturbed, the result being that there are already over five thousand plants in the Park. . . . The Homeric lotus made the companions of Ulysses forget their home, but these lotus plants give to parts of Central Park an extra local color that must remind our Japanese visitors of home." The

chapter on the cultivation and worship of flowers in the land where the eight hundred varieties of chrysanthemums show two hundred and sixty-nine shades of color, is full of interest and charm, but nowhere can I find the list of the twelve flowers to each one of which a month is sacred, in this land of flower-lovers. In the Eighth Book of "The Light of Asia" occurs an exquisite poem in which Buddha speaks before the King, showing him Truth. We can only quote briefly.

Before beginning, and without an end,  
As space eternal and as surety sure,  
Is fixed a Power divine which moves to good,  
Only its laws endure.

This is its touch upon the blossomed rose,  
The fashion of its hand shaped lotus leaves;  
In dark soil and the silence of the seeds  
The robe of spring it weaves;

\* \* \* \*

The grey eggs in the golden sun-bird's nest  
Its treasurers are, the bees' six-sided cell  
Its honey-pot; the ant wots of its ways,  
The white doves know them well."

### THE PROSAIC AGE

If dairymaids wore diamonds,  
And shepherds evening dress;  
If "sweetly scented roses"  
Resembled water-cress;  
If thrushes ceased to "warble,"  
And skies to "smile in blue;"  
If meadows discontinued  
Whatever 't is they do;  
If "bounding ocean billows"  
Should "sweep no more the sands;"  
If all the "moonlit evenings"  
Were in receivers' hands;  
If larks grew pessimistic,  
And every "summer breeze"  
Should join a Labor Union,  
And rhyme no more with "trees;"  
If all the "sturdy peasants"  
Had derby hats and canes,  
And every "lovely landscape"  
Were packed with railway trains;  
If "timid deer" the sidewalks  
Of Broadway should elect,  
And nightingales use language  
Which parrots now affect;  
If "gentle lambs" attacked you  
With murderous intent;  
If pigeons came and bit you,  
As "through the land you went";  
If "rosy dawns" grew scarcer,  
And "blushing girls" extinct—  
Ah, me! poetic fancies  
No longer would be inked.

—From the *Harvard Lampoon*.

—T. Ybarra.





BUNKIO MATSUKI, Publisher

380 Boylston Street, Boston





## A WISE SCOTCH TERRIER



HE was like a stiff yellow hearth-brush, except for a soft, silky tuft on the top of his head. In spite of his uncompromising appearance, he was devoted to his mistress, and could never bear to be separated from her. He always sat under her chair, ready to defend her against any intruder who came too near, and would bark furiously and boldly then; but—let a servant with a broom in her hand come in sight and he was frantic with fright. One summer the family went to Plymouth. While they were at breakfast one Monday morning, Jack, as usual, under his mistress' chair, the head of the house remarked that he was going to take Jack to town that day, to relieve his loneliness during the week. When the master rose from the table he called Jack. He had vanished! The household hunted and searched every closet, but no Jack could be found. The train drew out of the station without him, and no sooner had the sound of the engine died away than Jack appeared again, shamefaced but happy! He had never before failed to see his master off, so he must have understood the remarks and determined to stay by his mistress at all hazards.

M. C. S.

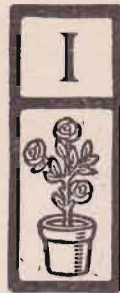
## THE DANDELION

Dandelion now is over,  
Gone to sleep in deep red clover  
Underneath the orchard trees.  
Little dream of spring that passes,—  
Ball of fluff amid the grasses,  
Swaying in the summer breeze.  
What, is our allegiance shaken,  
That no hand has come to waken  
You who sleep so over-long?  
Hush! a child with fingers tender,  
Picks your stem so long, so slender,  
Humming low some tuneless song.  
"Mother wants me when—who knows?  
One, two, three!" and then she blows  
High above her, wondering.  
So you play together there,  
While the seedlings in the air  
Have gone to plant another Spring.

—Ethel Hobart.

"WHO LOVES a garden still his Eden keeps:  
Perennial pleasures plants, and wholesome  
harvests reaps."

## CONCERNING STRAWBERRIES



IT is wise," says Aristotle, to be up before daybreak, for such habit contributes to health, wealth and wisdom." "He that in the morning hath heard the voice of virtue," says Confucius, "May die at night." And it were virtuous to rise early during our June mornings to breakfast on strawberries with the robins; or what were as good, partake of Leigh Hunt's delicious essay on these berries.

But one tastes none like the wild ones plucked fresh from the meadows of his native place, while the dew sparkled on the grasses, and the bobolink sought to decoy him from her nest there when he approached it. The lay lingers in the ear still:—

"A single note, so sweet and low,  
Like a full heart's overflow,  
Forms the prelude,—but the strain  
Gives us no sweet tone again;  
For the wild and saucy song  
Leaps and skips the notes among—  
With such quick and sportive play,  
Ne'er was merrier, madder lay."

The strawberry, it appears, was not restored to gardens till within a century or two back. Evelyn mentions "planting them out of the woods." I do not find it mentioned as a cultivated plant in the Greek or Roman rural authors. Phillips, in his "History of Fruits," gives this pleasant account of the origin of its name: that of "an ancient practice of children threading the wild berries upon straws of grass" somewhat as rude country boys thread birds' egg-shells like beads, as ornaments for their mirrors.

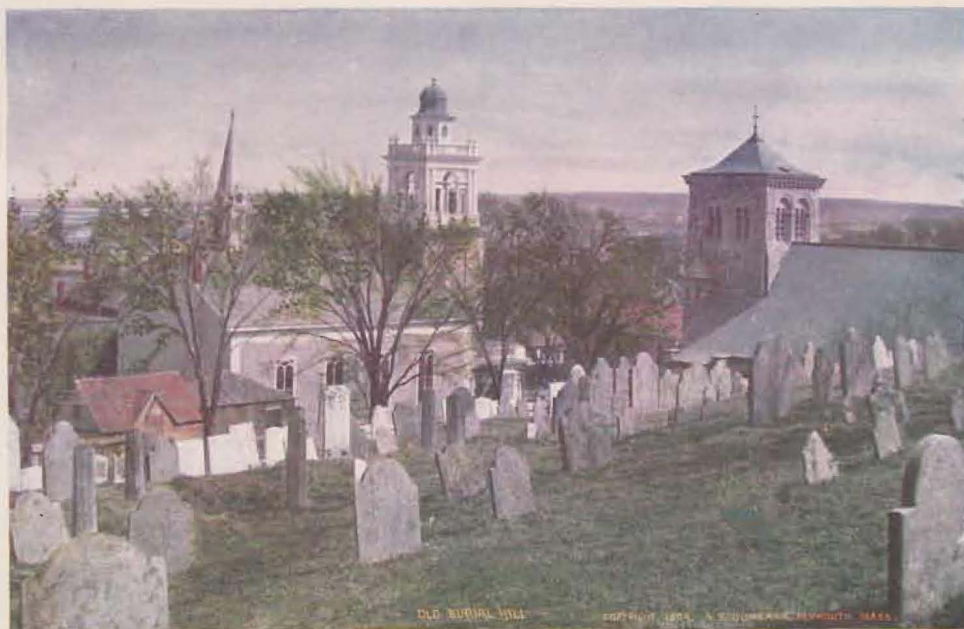
So many "straws of berries" are sold for a penny.

A. B. ALCOTT'S "June."

"COMPARISONS ARE ODOROUS."—Once upon a green bank by the wayside a baby *Mephitis chinga* was playing in the sweet clover when a great pea-green haughty-mobile dashed by at full speed. "Puff, puff!" the gasolene filled the air. "Sniff, sniff," went the nose of our little Mephitis. Then pensively remarking, "Whew! What's the use?" he wearily withdrew from the race.

From Gryn More.







AN INTELLIGENT COLLIE



ONE of my friends had a valuable collie puppy given to her some years ago, which she brought up by hand and trained most successfully. The full-grown dog was devoted to his mistress and followed her everywhere as she rode about the country. One summer morning as she was walking her horse on a shady bit of lonely road, a gipsy sprang suddenly from behind a clump of bushes and seized the bridle. With a quick instinct she rose in her saddle, gave the horse a sharp cut with her whip, and called the dog. In an instant the man was flat on his back in the road, and the dog was standing over him, holding him by the throat and looking up for his orders. "Watch him!" said the girl as she turned the excited horse and rode back to a bend in the road. Then she whistled to the dog and waited, dreading lest the man should fire on him as soon as he let go, but the collie seemed to know his danger and shot past her at full speed. In the evening as she was talking the matter over with her father while the dog lay asleep near them, he said, "I wonder what Roy would do if he thought I was going to hurt you." "Let's try. Speak sharply to me." So her father raised his hand as if about to strike, and said sharply, "Rosalie!" In an instant the dog sprang at him, put his front paws on his shoulders and held him back, but with a pathetic look of reproach in his face.

E. A. G.

WHAT IS IT?—I have found, quite recently, the most beautiful specimens of fungi growing on the damp clay soil in a cellar. These growths were thin and flat, resembling in form a mammoth snowflake, perfectly white and delicately cut in the most fantastic shapes. Some of the specimens were as large over as an ordinary teacup, and when I tried to detach one from the ground, I found it quite firmly fastened by tough little roots, or something resembling roots. Is it a distinct species and complete plant or simply the mycelium or beginning? Will anyone tell me what it is? M. K. B.

EXTRACT FROM LETTER WRITTEN AT WESTERN RANCH, PLAINVILLE, JUST-SO COUNTY

"AFTER THE blizzard was over—I refer to the wind-storm in which our house was swept through the air in a complete circle, without upsetting our equanimity or the lighted kerosene lamps—the family all took baskets and went down to the 1000-acre lot to gather the quails and partridges off the barbed wire fence. They were all so neatly plucked by the wind that supper was only delayed by a few moments.

Yours truly,

J. HAWKER, Kansas.

"The very best is good enough for me."—*Gathe*.

THE COW TREE.—"Among the many curious phenomena which presented themselves to me in the course of my travels," says Humboldt, "I confess there were few by which my imagination was so powerfully affected as by the cow tree. On the parched side of a rock on the mountains of Venezuela grows a tree with dry and leathery foliage, its large, woody roots scarcely penetrating into the ground. For several months in the year its leaves are not moistened by a shower; its branches look as if they were dead and withered; but when the trunk is bored, a bland and nourishing milk flows from it. It is at sunrise that this wonderful and marvelous vegetable fountain flows most freely. At that time the blacks and natives are seen coming from all parts, provided with large bowls to receive the milk, which grows yellow and thickens at its surface. Some empty their vessels on the spot, while others carry them to their children. One imagines he sees the family of a shepherd who is distributing the milk of his flock.

Contributed by C. E. H.

THE PATH of him who edits, even though it be a Magazine of All-out-doors, in the month of June, is not always strewn with roses. Some of our would-be contributors, when it came to the point of writing their "story" have found that like G. W., they really could not do it! We have also failed to secure the seal of Veritas from our Cambridge authors.



THE WAY OF THE TOAD—  
HIS LIFE FROM THE EGG  
TO THE END—AN INTER-  
ESTING TREATISE PRE-  
PARED BY MR. KIRKLAND  
OF BOSTON



APPARENTLY with no ambition to figure in literature as the author of a "nature book," but simply to set forth some observations as a student for the benefit of science, A. H. Kirtland of Boston has nevertheless written one of the most fascinating of little treatises on the common garden toad. It appears as a pamphlet bulletin of the Department of Agriculture, under the auspices of the division of entomology.

The toad, Mr. Kirtland tells us, is bred very much like the frog—that is, from eggs set afloat in little ponds. The young hatched from these in the spring are tadpoles, which as their legs develop, absorb their tails, and then quit the water and take up their life as land animals. The tiny toads, being unable to endure the heat of the sun, hide during the day under leaves, rubbish, stones and the like, unless a rain falls; then they swarm forth in such numbers as to give ignorant observers the impression that there has been a shower of toads from above. Their habit of keeping out of the sunshine has the advantage of saving multitudes of them from birds with an appetite for such food. When they come out after dark they are pounced upon, however, by the night birds and mammals, and are destroyed in great numbers.

Reference has been made to the toad's consumption of food as being out of proportion to his bulk. But what he can actually do at a sitting is best told by figures derived from experiment. His official record shows one case where he ate ninety rosebugs without being satisfied; another where he snapped up eighty-six houseflies in less than ten minutes. In one toad's stomach were found seventy-seven thousand-legged worms; in another sixty-five gypsy moth caterpillars; in another fifty-five army

worms, and so on. On the basis of his being able to fill his stomach four times in twenty-four hours, it requires a simple mathematical calculation to discover how many of each variety of winged or crawling pest a single toad might get away with in a day if he kept at it and the conditions were favorable; and multiplying this product by ninety, as representing the days of the summer—for Mr. Toad is no respecter of Sundays or holidays—we can measure his potential capacity for good as the gardener's friend. On the strength of such a showing, wonder ceases at the thought of Mrs. Celia Thaxter's importation of a small cargo of toads from the mainland to her flower garden on the Isles of Shoals, or of the willingness of English tillers to colonize them at a cost of \$25 a hundred.

—From the "Transcript."

QUEEN ANNE'S LACE

[A very appropriate name sometimes given the Wild Carrot.]

A white robed maiden of the morn  
With shining sickle, faces  
A field spread white with floweret's bloom,  
With Queen Anne's dewy laces,  
With countless gifts and graces,  
Queen Anne's most charming laces.  
O white robed maiden of the dawn,  
You glean in earth's fair places;  
With happy song, in rosy dawn,  
Dost gather Queen Anne's Laces,  
Fair, pure and dainty graces,  
Queen Anne's most charming laces.  
To maidens sweet who bless the world  
With little gifts and graces,  
Sing of the future's gathered store  
Of ever lovely faces  
That shine from Queen Anne's laces—  
Of tender, beauteous faces.

C. Z. Blackmer.

IN A FUR-STORE.—A lady with seal-skin desires and beaver-skin income consults polite clerk concerning her winter wear: P. C. "I strongly recommend the real thing, madam, for the first shower will ruin this imitation mink." L. O. B. I." Really? Why, what do the poor little imitation minks do when it rains?"

"When I the starry courses know,  
And Nature's wise instruction seek,  
With light of power my soul shall glow,  
As when to spirits spirits speak."

—Faust.



"Our fathers pulled their boat ashore."—*W. E. Channing.*



CARVER  
BRADFORD  
WINSLOW  
STANDISH  
BREWSTER

*The landing of the FATHERS Plymouth Dec 22 1620*

COPIED FROM AN OLD PAINTING ON GLASS.

AND though it was very darke, and rained sore, yet in ye end they gott under ye lee of a smalle island, and remained ther all ye night in saftie.

But though this had been a day & night of much trouble & danger unto them, yet God gave them a *Morning* of Comforte & refreshing (as usually he doth to his children), for ye next day was a faire, sunshining day, and they found themsellvs to be on an iland secure from the Ideans, wher they might drie their stufe, fixe their peeces, & rest them selves, and give God thanks for his mercies, in their manifold deliverances. And this being the *last day of ye weeke*, they prepared ther to keep ye *Sabath*. On Munday they sounded ye harbor, and found it fitte for shipping; and marched into ye land, & found diverse cornfeields, & litle runing brooks, a place (as they supposed) fitt for situation; at least it was the best they could find, and ye season, & their presente necessite, made them glad to accepte of it.

"So they returned to their shipp againe with this news to ye rest of their people, which did much comforte their hearts."



Copyrighted 1893 by A. S. Burbank

PULPIT ROCK, CLARK'S ISLAND.



## A WORD OF THANKS



WORD of thanks is due to the many contributors who have helped to make the editing of our Mid-summer Number a real pleasure. Mr. Elson's generous printing of the etching kindly given by Mr. Bicknell, and of his own photogravure "In Ann Hathaway's Garden," began the good work. Then Mr. Dunham sent us a pile of fine photographs to choose from. Manuscripts filled the mail-box, animal whoppers were the order of the day! Mr. Burbank offered us the beautiful color-work of the Suffolk Press, which speaks for itself; Mr. Bunkio Matsuki contributed the Lotus design so well printed on the difficult Japanese paper. The pink eyes of his "bunnies" are dear to many children. That and the four pages of half-tone views in Plymouth and Kingston are done by Mr. Powers, of the Rockwell and Churchill Press. The graceful border-design of poppies and the quaintly gated garden, with other pretty plates and even more valuable advice come to us from the enthusiastic editor of "Modern Women." The "New England Herb Garden" half-tone is the good work of the J. Horace McFarland Co. The Madonna by Sodoma has been rarely reproduced, and the Bureau of University Travel has some thousands of prints of equal interest. We all know that North Street designs are best, and we hope our Sabbatia flowers will be of lasting beauty. Putnam's Sons sent the electro-plates of the Plymouth chapter in their "Historic towns of New England," Houghton & Mifflin the fac-similes of the signatures of Emerson and Thoreau. Our advertisers gave noble and essential aid. As for the putting together of this *Art-full* puzzle, the Memorial Press has solved the problem in the happiest manner. The one fact that the cover goes through the press five times, gives a faint idea of what the thirty pages cost of practised labour. To all, and for all, the Old Colony Natural History Society gives warmest thanks, and leaves the Midsummer Number in the hands of those next in line to help; i. e.: the subscribers. May they buy gladly, and fill the mail with their orders!

THE FIRST WILLOW TREE.—The weeping-willow tree came to America through the medium of Alexander Pope, the poet, who planted a willow twig on the banks of the Thames, at his Twickenham villa. The twig came to him in a box of figs sent from Smyrna by a friend who had lost all in the South Sea bubble, and had gone to that distant land to recoup his fortunes. Harper's Encyclopædia tells the story of the willow's arrival in America. A young British officer, who came to Boston with the army to crush the rebellion of the American colonies, brought with him a twig from Pope's now beautiful willow tree, intending to plant it in America when he should comfortably settle down on lands confiscated from the conquered Americans. The young officer, disappointed in these expectations, gave his willow twig, wrapped in oil-silk, to John Parke Custis, Mrs. Washington's son, who planted it on his Abington estate in Virginia. It thrived, and became the progenitor of all our willow trees.

THIS YEAR, we miss two of our feathered friends from their usual places, the Chimney Swift and Purple Martin, only one or two birds of either species having been seen in Plymouth.

It was noted last year, that all of the Martins perished in the cold June storm, and we think that must account for the disappearance of the Swifts, too. M. W. W.

"TO LET no bird fly past unnoticed, to spell patiently the stones and weeds, to have the mind a store-house of sunsets, requires a discipline in pleasure and an education in gratitude."

—Chesterton's "Savonarola."

"Yet in each soul is born the pleasure  
Of yearning onward, upward and away,  
When o'er our heads, lost in the vaulted azure,  
The lark sends down his flickering lay.—  
When over crags and piny highlands  
The poising eagle slowly soars,  
And over plains and lakes and islands  
The crane sails by to other shores."

—Faust.

"The pedigree of honey  
Does not concern the bee;  
A clover, any time, to him  
Is aristocracy."

—Emily Dickinson.





MADONNA AND CHILD

*Brera, Milan*

BUREAU OF UNIVERSITY TRAVEL  
ART STUDY SERIES. No. 3210 b.

IL SODOMA. 1477-1549.  
LATER SIENESE SCHOOL.





A PILGRIM BOOKSTORE CLERK

## Burbank's Pilgrim Bookstore

19-21 Court Street

Is one of the points of interest in Plymouth and the place to find the Choicest Souvenirs in China, Spoons, Books, Pictures and Art Goods, Cameras and Supplies.

### Plymouth Post Cards

50 subjects

See samples opposite page 26

Set of 8 Cards, Colored, 25 Cents  
Set of 12 Cards, Plain, 25 Cents

A. S. Burbank, Pilgrim Bookstore  
Plymouth, Mass.

## OLD CURIOSITY SHOP

KEPT BY

Winslow Brewster Standish

Lineal Descendant of Capt. Myles Standish

Ancient and Antique Furniture  
Pewter Ware, Crockery, China,  
Fire Sets, Old Books, etc.  
Also a Large Assortment of  
Views, Guide Books and other  
Plymouth Souvenirs.



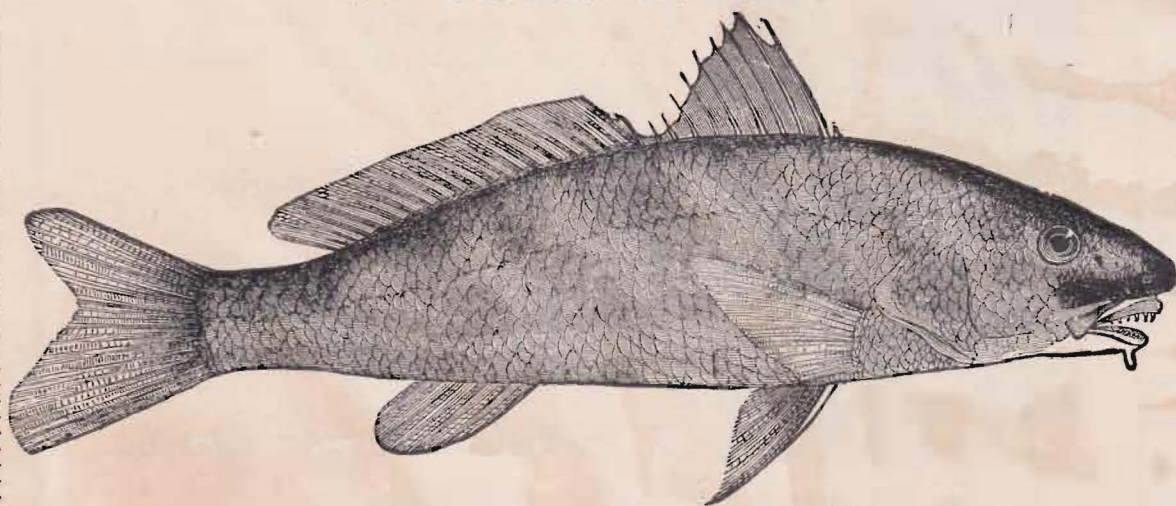
WATER STREET, near foot of Leyden, PLYMOUTH, MASS.





ANTHONY ATWOOD

73 WATER STREET



PLYMOUTH, MASSACHUSETTS

1840

All a-growin' and a-blowin'

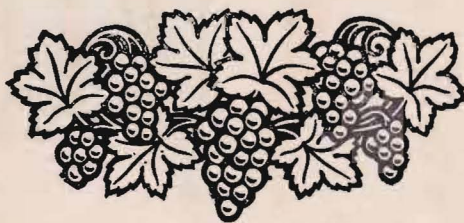
1904

## Old Colony Nurseries

Hards Shrubs, Trees, Vines, Evergreens  
and Perennials. Good Plants, best  
sizes for planting, very cheap

Catalogue Free

T. R. WATSON, Plymouth





B. O. STRONG.

C. A. STRONG.

## B. O. Strong & Son

### DRY GOODS

Wall Papers, Curtain Goods

Fixtures, Etc.

AGENTS FOR

BARRETT'S DYE HOUSE

and STANDARD PATTERNS

13 and 15 Court Street

PLYMOUTH, MASS.

---

<h1>COAL</h1>
---------------

---

Seasoned Oak Wood

Dry Kindling

10 cents per Basket

---

## James Millar & Co.

Telephone 23-2.

# THE BEST SODA

COOPER'S Ice Cream Soda and  
College Ices are famous . . .

Chocolate and Strawberry Ice  
Creams are particular favor-  
ites served in this way . . .

A revelation awaits those who  
have never tried them . . .

It is an experience worth hav-  
ing and it costs but 10 cents

---

## Cooper's Drug Store

PLYMOUTH, MASS.

---

WHEN YOU WANT

THE BEST

## Staple and Fancy

### GROCERIES

GO TO

# SHAW'S

No. 66 Court Street

Branch 58 Sandwich Street

Telephone 41-12





# THE JOHN AND PRISCILLA SPOON

## STILL AHEAD

Design Patented by H. E. Washburn. Call and See It at the

PILGRIM JEWELRY AND GUN STORE

Have Your Eyes Examined for New Glasses. Leave Your Watch and Jewelry  
for Repairs. All Work Guaranteed at Fair Prices by

H. E. WASHBURN, 14 MARKET STREET, PLYMOUTH

**M. D. Costa**

Dealer in

Foreign and Domestic Fruits  
Cigars, Tobacco, Etc.

40 Court Street, Plymouth, Mass.  
Grocery Store at 13 Water Street

## SOUVENIRS

Souvenir Albums, Postals,  
Views of Plymouth,  
Burnt Leather, Wood  
and Indian Goods.

A new line of Pilgrim  
China just received.

Souvenir Spoons, Pins and  
Trays at

**Plymouth News Rooms**

C. A. SMITH

DAVIS BUILDING



**Miss F. F. Simmons**

Fashionable Millinery  
and Fancy Goods

32 Main Street, Plymouth, Mass.



# STERLING SILVER SOUVENIRS

Every Souvenir Spoon of any artistic merit can always be found at our store. SOME DESIGNS ARE EXCLUSIVELY OUR OWN. Be sure and see our new spoon, "The Courtship of Myles Standish."



## Our Prices

Courtship of Myles Standish Spoon.	Coffee, gold bowl	. . . . .	\$1.25
Courtship of Myles Standish Spoon.	Coffee, plain bowl	. . . . .	1.00
Plymouth Rock ; Landing of Pilgrims ; Pilgrim Hall.	Coffee, gold bowl	. . . . .	1.25
	Coffee, plain bowl	. . . . .	1.00
Plymouth Rock and Landing of Pilgrims.	Tea, gold bowl	. . . . .	1.50
Plymouth Rock and Landing of Pilgrims.	Tea, plain bowl	. . . . .	1.25
Standish and Priscilla.	Tea	. . . . .	1.50
Standish and Priscilla.	Coffee	. . . . .	1.25

GOODING BROTHERS,

No. 24 Main Street

## CURRIER'S

Ice Cream and Confectionery at Wholesale and Retail

We make a specialty of family orders. High Grade Goods, and prompt service. If you want creams or ices, telephone to

CURRIER'S,

22 Main Street, Plymouth, Mass.

W. N. Snow

Furniture, Carpets, Window Shades,  
Draperies Goods, Etc.

*A few of the good things we carry:* The famous Ideal line Springs, Iron Beds, and Accident Proof Cribs. A Cotton Felt Mattress at \$10.00, equal to other makes advertised and sold at a much higher price. A Silk Floss Mattress at \$15.00, the best mattress in the world for the money.

### "VILAS" EXTENSION BOOK CASE

Has points of advantage which we guarantee to be improvements which unquestionably places this Book Case in advance of anything of the kind in the world. Has paneled ends, adding beauty. Thirty-six inches long—unusual book room. Non-binding doors. All connecting devices out of sight.

53 MAIN STREET

PLYMOUTH, MASS.