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Photograph by Julian Buckly

THE CAPEN HOUSE AT TOPSFIELD, MASSACHUSETTS. Detail of Gable

Built during the second half of the 17th century; an example of the framed overhang type. The central bracket supporting the gable overhang is the original; the "drops" are restored.

The WHITE PINE SERIES ARCHITECTVRAL MONOGRAPHS

ARCHITECTURAL USES OF WHITE PINE AND ITS AVAILABILITY TO-DAY AS A STRUCTURAL WOOD

COLONIAL COTTAGES

SALUTATION

TN the early part of the nineteenth century there flourished in Boston a very eccentric character by the name of Timothy Dexter; no matter how unsound Mr. Dexter's business ventures seemed at their inception, they invariably turned out successfully. None was more characteristic than the incident wherein Mr. Dexter chartered a sailing vessel and shipped a cargo of old-fashioned warming pans to the West Indies!

Vol. I

In place of this being a complete loss, the natives discovered in these warming pansminus the charcoal inside-exactly the implement they long had needed, not only as a ladle but also as a strainer for their sugar-cane. By this venture Mr. Dexter, it is reported, established a profitable trade in warming pans to the tropical islands.

This incident does not lack pertinence in introducing a series of Monographs for the architectural profession, for it oftentimes seems that when literature issued by a manufacturer has the good fortune to reach its goal, it is only by some such stroke of good luck as befell Mr. Dexter.

In issuing this Monograph Series the White Pine Bureau does not intend to rely entirely on Timothy Dexter's good luck. To edit this series we have obtained the co-operation of Mr. Russell F. Whitehead, formerly Editor of "The Architectural Record" and of "The Brickbuilder," now a practising architect, whose ability has, we feel, been demonstrated. In addition to Mr. Whitehead's experience and our own resources, we hope that we may be favored with the good fortune that befell Timothy Dexter, but we are trying to take nothing for granted.

The Monograph Series will present classified illustrations of wood construction, critically described by representative American architects, of the most beautiful and suggestive examples of architecture, old and new, which this country has produced. Appreciating that most architects prefer to form their own conclusions from good photographs, the pictorial side of the work will be made the dominant feature, being in charge of Mr. Julian Buckly, architectural photographer. In selecting subjects the highest standard will be maintained, and they will be chosen with special reference to their usefulness to the architectural designer. By this discriminating choice of subject matter and the quality of its plate reproductions, the Monograph Series hopes to earn a place as a valuable addition to the literature on architecture, and thereby become worthy of preservation in a library of standard architectural works.

This first Monograph on Colonial Cottages inaugurates the series, and records some of the remaining examples of the last half of the seventeenth century, or that period in American architecture which evidences the dignified beginnings and basic strength of design of our later and more refined Colonial architecture. The text is contributed by Joseph Everett Chandler.

The second Monograph will be devoted to New England Colonial houses, which show the various refinements that were introduced in that later period ending with the Revolutionary War. For this number Frank Chouteau Brown will furnish the text.

Subsequent numbers will be issued every second month, and each will contain an exposition of some type or style of building suitable for construction in wood.

The Monograph Series is published by the White Pine Bureau, representing the Northern Pine Manufacturers' Association of Minnesota, Wisconsin, and Michigan, and The Associated White Pine Manufacturers of Idaho. The object of the Monograph Series is to further acquaint the architect with "White Pine—Its Qualities-Its Availability-Its Cost," which subject is fully covered on page fourteen of this issue.

The White Pine Bureau has entrusted the details of publication of the Monograph Series to Mr. Whitehead, its editor, who is one of you, and who will bring together through this publication material that will, it is hoped, help you to solve your problems involving the uses of wood.



Courtesy of Henry I. Fairbanks, Dedham, Mass.

THE FAIRBANKS HOUSE AT DEDHAM, MASS. Built in 1636

The oldest house in America (excepting possibly the shell and adobe houses of Florida and California), which is now standing, in practically its original condition. The central portion of the house is 279 years old. It was built of White Pine, left unpainted, and remains today a striking tribute to the enduring qualities of this material.

COLONIAL COTTAGES OF MASSACHUSETTS DURING THE LATTER HALF OF THE SEVENTEENTH CENTURY

By JOSEPH EVERETT CHANDLER

The restoration of the Paul Revere House, Boston, Massachusetts, was entrusted to Mr. Chaudler, as well as the restoration of "The House of the Seven Gables," Salem, Massachusetts, made famous by Hawthorne's story of the same name.—EDITOR'S NOTE PHOTOGRAPHS BY JULIAN BUCKLY

E read with absorbing interest how students of Egyptian Archæology found in the Rosetta Stone, with the aid of other inscriptions, the key to the hieroglyphics on the tombs and the obelisks, and by it were enabled to interpret to the modern world the records of bygone centuries. Wonderfully picturesque and instructive to us have been the translations of these Egyptian records, revealing as they do the daily life of those days. Seldom do we stop to think that a large part of the history of the days of our own forefathers lies recorded in the very walls of the houses they built. The records are preserved in a somewhat different way, it is true, but without the few houses that remain, we should be at a loss to know in what manner of domicile the early colonists lived their lives, since the rare written documents of that period make slight mention of the houses. Were these buildings not preserved, we might be picturing the colonists of New England as living for many years in rough log huts, whereas actually such rude shelters were rapidly replaced by houses of more or less finished craftsmanship, and there are indications that even during the first fifty years subsequent to the set-tlement by the Pilgrims in 1620, considerable thought was expended upon the æsthetic as well as upon the practical side of the problem.

Some of the early craftsmen who became our carpenter-builders in New England brought with them from the mother-country certain traditional methods of construction, and for a period followed the ways with which they were familiar. But the new country, with its rigorous climate, rapid temperature changes and frequent searching storms, as well as the completely new materials with which they were obliged to work, soon caused them to adapt their work to the new conditions, with results which were utterly distinct from any work of the mother-country.

Unfortunately many of these early domiciles have been destroyed, some because the small villages of which they once formed a part have now grown into cities, while others have been torn down and replaced with newer and more pretentious structures because of the persistent (and perhaps regrettable) love of change characteristic of the American people. Nevertheless, in the eddies and quiet harbors of the territory inhabited by the early colonists there can still be found a few examples of the dwellings of our forefathers, which seem to express intheir sturdy frames something of that strength of character which the definite purpose, the aspirations and the hopes of their original occupants quickly gathered from the new soil. Their point of view of life was peculiarly bound up in, and expressed by, their family shells—their homes.

There was not much masonry used in our early domestic architecture. The foundations were of stone, frequently laid up in clay dug from the cellars; the spaces between the timbers of the framework were filled with soft brick of home manufacture, often laid up in clay mortar; the chimneys were of stone or of brick, sometimes of the two in combination, with the hearths of the fireplaces of smooth, large stones, or of hard brick, or of large, heavy tiles brought from the mother-country.

These few portions of the house were the only ones not built of wood, for the framework, the floors and the walls alike bear testimony to the ease with which the native woods were employed to further comfort and beauty. Undoubtedly their builders gave thought to the beautiful, even in those stern days of wresting a livelihood from the new and difficult soil and the waters which isolated them from the rest of the world. Why otherwise should the summerbeams which carried the overhanging second stories have their edges chamfered, with beautiful moldings carved into the chamfer, and stopped at the ends with the familiar "lamb'stongue" ornament? The amount of care lavished on these early buildings is surprising. At the same time, had the material been oak, as it was in the English houses, it could never have been executed with the small means at the disposal of the colonists. Instead of oak the colonists used the strong, easily worked, comparatively light and entirely durable white pine, the best of the plentiful native woods. The mass of the house as well as the details was studied by their craftsmen-builders; witness the many cases where they were built with overhanging second stories on the front or sides and occasionally having the gable ends treated in a similar way. This overhang was probably reminiscent of the

THE WHITE PINE MONOGRAPH SERIES-COLONIAL COTTAGES



DETAIL OF OLD BROWN HOUSE, HAMILTON, MASSACHUSETTS

The overhang is unusual in being a framed end showing endgirt molded and chamfered. This is a fine type of "drop" ornament depending from the posts framed into the projecting second end-girt. "The House of the Seven Gables" in Salem was found to be similar to this house.

traditional English construction, but was unquestionably carried out because it was picturesque, and not because of its utility or ease of construction. Very frequently the overhang was embellished with brackets, drops and chamfered beams or girts, which show considerable care and a decided feeling for form in their selection.

The overhang on the front, which was a more usual position for it than on the ends of the building, generally had four carved ornamental drops depending from the four girts, two at the ends and two on the extension of the central chimney girts, when the projection of the second story was of "framed" construction and sufficient to receive them. Possibly, at times, brackets were used at either side of the front door, and certainly when gable ends projected they were frequently carried on brackets, sometimes of ornamental form, as was the case in the Capen house, in Topsfield, Massachusetts, which is in many ways one of the most interesting of the remaining examples.

The interiors likewise were not built as was most convenient, but show that care and thought were displayed in treating the novel conditions encountered by the early builders so as to produce an interesting and often beautiful effect. For example, many of the houses had their interiors ceiled vertically with boards of random widths, inclining to be very broad, the edges matched and the juncture carrying a series of moldings which were flush with the faces of the boards. In some cases a type of decoration has been found of a curious dentil cut into these moldings, which are then run between the chimney girt and posts, on the edge of the The under flooring of the upper boarding. rooms was exposed and thereby formed a roughly paneled ceiling between the girders and joists, and this flooring was as interesting seen from above as from below, for it was made of great slabs of white pine held in place with wooden pegs. In spite of the fact that they were often two feet in width, because of the nature of the material they show little shrinkage and few cracks.

The posts, girts, summer-beams and joists were usually exposed in the interior, and were frequently of such great size that the construction might almost be called massive, although they were put together in the most characterful way, tongued and pinned and oftentimes decorated with moldings and chamfers. This construction, so direct and convincing, has a feeling quite distinct from that later work which usually comestomind when the word "Colonial" is used, it being rather Gothic than Classic in its charm and spirit.

The inside walls were usually plastered even



DETAIL OF OLD BRAY HOUSE, WEST GLOUCESTER, MASSACHUSETTS

The corner post -- "shouldered"-- is roughly carved. It is a piece of ornamented construction of great interest.

in the houses where the chimney end partitions were covered with wood; and as most of the early work was unpainted and left to darken with age, the flooring only being sanded or scrubbed, the combination of color was indescribably warm, rich and satisfying, and completed most satisfactorily rooms of excellent structural design. The days have happily not gone by when many people consider this kind of an interior much more attractive than one in which the walls are covered with elaborate work and painted innumerable coats, rubbed down and glossed to a "piano finish." There is at least one recent instance where an owner has built his home in the form of this early period, leaving the marks of the adze and other implements on the wood, following the old methods of construction carefully, the result being a modern house thoroughly American in spirit and of old-time honesty and charm of feeling.

These houses were in many ways different from the later and better known Colonial type on the exterior as well as within; the roofs were steeper, the houses thinner, and what little detail there was, was of forms founded on Domestic Gothic work rather than on those of the period of the Classic Revival; the chimneys usually were long and comparatively thin, instead of massive and square as we should have expected, and were frequently embellished by projecting pilasters. An example of this sort of chimney may be seen in the Boardman House at Saugus, as well as in the Corbett House at Ipswich.

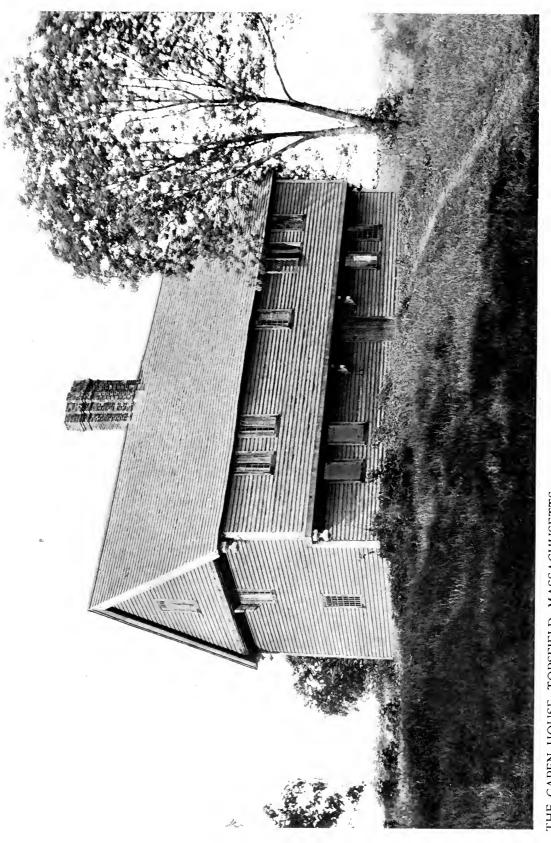
The green and white of the conventional Colonial was likewise a thing of later development, for many of the old houses have never had a coat of paint. Others were probably not painted until many years after their construction, and the fact that so many of the older buildings have remained in good condition until this day, without any paint at all, is extraordinary testimony to the durability of the materials used in their construction.

These houses, built in the stress of strenuous early times, do not furnish us much for study or emulation in the way of detail, except that most admirable kind which was applied to the important constructional pieces of framing. These forms are so different from those we usually employ and are of such honesty and charm that they deserve to be far more extensively known than is the case at present. Therefore it seems quite appropriate that this Series of Architectural Monographs should commence with the depiction of these early efforts of house-building in one of the foremost and most individual of the original States, and from which early domestic architecture gradually evolved that type which is commonly referred to to-day as the Colonial Style.



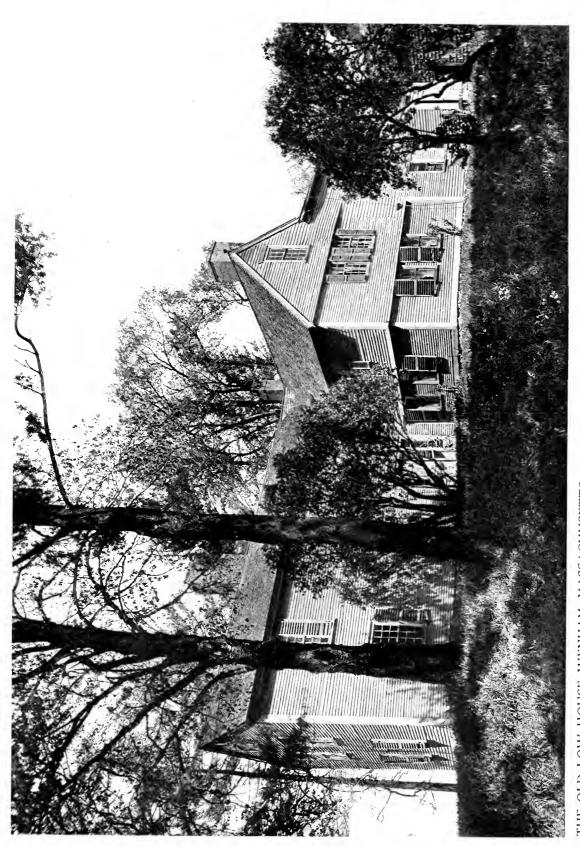
THE OLD BRAY HOUSE AT WEST GLOUCESTER, MASSACHUSETTS

An example of the hewn overhang type of construction. The large size of the cornice would suggest that a plaster cove cornice had once been used here.



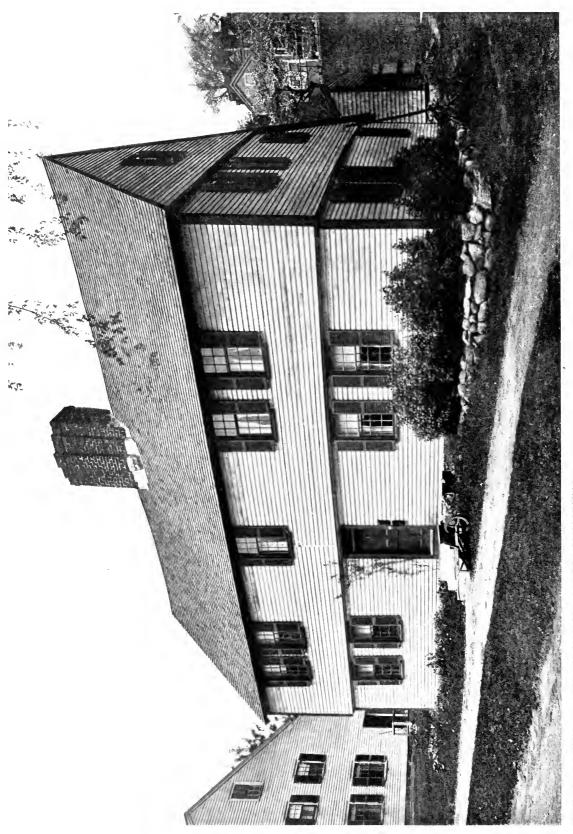
THE CAPEN HOUSE, TOPSFIELD, MASSACHUSETTS

Massachusetts. The bracket in the center of the gable overhang is the original one; those at the sides of the doorway are reproduced from this, and are a An example of the framed overhang type built during the second half of the 17th century. The "drops" were restored after the Brown house at Hamilton, sensible embellishment, but not as constructional as the girt-supported posts and the drops usual in this position. The use of "drop" ornaments in the gable is questionable. The fenestration has been unchanged in restoration, although leaded sash have been substituted in place of "double-hung" sash.



THE OLD LOW HOUSE, WENHAM, MASSACHUSETTS

The original house was built in the second half of the 17th century, with framed overhang, front and side. In the 18th century the addition in front of this was added, the chimneys both being of this latter period. The house is a picturesque growth and combination of the two periods.



THE CORBETT HOUSE, IPSWICH, MASSACHUSETTS

Of the hewn overhang type and built during the second half of the 17th century. The gable end overhang is slight but continuous, with molded edges of framing where showing extensively. The chimney is an excellent example of the "pilastered" type belonging to this period. The fenestration is probably original as to location and size, but it is thought double-hung sash have been substituted for the single leaded sash.



Of the framed overhang type. Built during the second half of the 17th century. The roof has projecting gable ends with "lean-to." The chimney is larger and nearer square than is usual in this kind of house. The original "drops" from the ends of the second-story posts have been removed and small ball-shaped ornaments substituted.



From the Mary H. Northend Collection, Salem, Mass.

THE JOHN WARD HOUSE AT SALEM, MASSACHUSETTS. Built in 1634

The exact date of the unpainted White Pine siding is not known, but there are records making certain that the siding on the main portion of the house is from 150 to 200 years old, and stands now as originally built with practically no repair. Although the siding of the lean-to is of a much later date, one is unable to notice an appreciable difference between it and that put on almost two hundred years ago. The Ward house, as can be plainly seen by this illustration, is in splendid condition to-day, and testifies to the lasting qualities of White Pine.



THE OLD BOARDMAN HOUSE, SAUGUS, MASSACHUSETTS

WHITE PINE ITS QUALITIES—ITS AVAILABILITY—ITS COST

THE TEST of three centuries of building in America has proved White Pine the one perfect outside structural wood. It meets every requirement for a wood covering exposed to the relentless attack of time and weather. Other woods have some of its qualities—no other wood has all of them.

It does not shrink, swell, check, crack, split, twist, warp, or rot, even after years of exposure under the most exacting climatic conditions. In siding, casings, or cornice, it does not "creep or crawl," or open at the joints; in exposed mortised doors, in fine close-fitted mitres, or in delicately moulded, carved and columned porticos, its joints hold close—not for a year or a life-time, but for centuries. The "Old Fairbanks House," the second illustration in this issue, and many other unpainted, weatherbeaten White Pine houses of New England, built soon after the Pilgrims landed, are still the well-preserved and comfortable homes of their descendants, and offer the most convincing proof of the enduring qualities of this most remarkable wood. But durability is not White Pine's only admirable quality.

It seasons quickly and thoroughly; it is light and soft—yet strong; no other wood works so easily under the carpenter's tools, and once in place it forever "stays put"; it offers only the slightest resistance to nails and screws, then closes in and holds them fast; because of its close grain and freedom from objectionable acids and oils it takes paints and stains perfectly. The pattern-maker, wood-carver, and cabinetmaker choose it for the most exacting uses to which wood can be put; the box-maker, because it is soft but strong, does not split and carries no odor; the plasterer, because White Pine lath hold their place, and therefore plaster, so well.

THE WHITE PINE MONOGRAPH SERIES--COLONIAL COTTAGES

Substitute woods may be satisfactory in protected places, but none has been found to equal White Pine in successfully withstanding every exposure out-of-doors. In an effort to displace White Pine, they have all in turn been "tried," but in some respect "found wanting." As against its harder, flintier substitutes, the economy in working it is marked, though this is ordinarily overlooked and rarely reckoned with. It is the one wood that embodies every structural quality, therefore it has no superior for any of the special or specific requirements demanded in house construction, either inside or outside. But for "out-of-doors," it stands alone. These advantages are conceded to White Pine and have accorded it the one perfect wood for the outside covering of a building.

That our use of the terms "outside covering" and "exterior surfaces" may not be misunderstood, they include siding and corner boards; window-sash, frames and casings; outside doors, door-frames and casings; outside blinds; all exposed porch and balcony lumber; cornice boards, bracket ornament and mouldings; and any other outside finish lumber—not including shingles.

Against White Pine have been raised two arguments—and only two—SCARCITY AND COST.

Nothing is more erroneous. To-day, as always, all markets—with the possible exception of the Pacific Coast States and Southern States—can furnish it at prices that are reasonable, when its qualities are considered.

The production of White Pine for 1912, based on the last issued annual United States Government report, as published by the Census Bureau on December 30, 1913, was 3,138,227,000 feet, manufactured by 5,733 saw mills, in 31 different states, an amount fully sufficient to meet every possible demand. The disappearance of many mills from the water-ways of the Middle West has led to the belief that the White Pine forests are exhausted. Larger mills, however, have replaced them at the source of an abundant supply, and will produce White Pine and plenty of it for generations to come.

The cost of White Pine, it is true, is higher than that of its substitutes, but mahogany costs more than birch, oak than ash, and wool more than cotton or shoddy; yet no one questions the difference in their price, or in their relative worth. In first-cost, White Pine is not "cheaper," but because of its ability to withstand every trying weather condition it is in the end more economical, and therefore it is worth more. And here it should be emphasized that clear White Pine, or even White Pine of the higher grades, is not essential to ensure this wearing quality; - and also that coarseknotted lumber of one kind may give infinitely better service than absolutely clear lumber of another kind. A White Pine board may have numerous sound knots, yet after years of exposure to the weather it will remain as perfectly in place as at first fitted, with no sign of age or decay, and therefore it has surely served its purpose better than an absolutely clear substitute wood, which under similar conditions is found checked, warped, opened at the joints, and perhaps decayed. Again—hardness and obstinate cross-grain in a wood mean added expense to the carpenter in working it-but White Pine is soft, its grain smooth and yielding, and in this alone there is a lessened expense in working it which absorbs much of, if not quite all the difference in cost between it and its substitutes.

The selection of a structural wood is too frequently determined by its price per thousand feet, and not by its true worth for the particular purpose for which it is to be used. The cost of lumber for the outer covering of a house is relatively very small in comparison with the total investment, and the difference in cost per thousand feet can be very misleading.

To determine this definitely and to insure the accuracy of our statement, we have compiled a number of comparative costs, based on actual market prices in different parts of the country, covering several different types of houses. The resulting cost figures, painstakingly computed so as not to be misleading, show that from $1\frac{1}{2}$ to $1\frac{3}{4}$ per cent only of the total cost of the ex-

WHITE PINE-ITS QUALITIES-ITS AVAILABILITY-ITS COST

terior of a building determines between using White Pine or a substitute wood. In these figures no attempt has been made to show the reduced cost of working soft White Pine as against its harder substitutes, for while the difference in cost is surprisingly large, there can be honestly varying opinions as to the exact amount of this difference.

The misapprehension as to scarcity and prohibitive cost of White Pine has frequently led to the substitution of less satisfactory woods in the hope that they might be "just as good," but the test of time proves that they are not. White Pine—the wood pre-eminent in building, to-day as always—is still abundantly available in all grades and in any quantities desired. If the lumber dealer supplying your needs is at any time unable to furnish it, we would appreciate the opportunity of being helpful to you in securing it.

> WHITE PINE BUREAU, Merchants Bank Building, St. Paul, Minnesota.

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THE NORTHERN PINE MANUFACTURERS' ASSOCIATION OF MINNESOTA, WISCONSIN AND MICHIGAN, AND THE ASSOCIATED WHITE PINE MANUFACTURERS OF IDAHO.





THE SALTONSTALL-WHIPPLE HOUSE, IPSWICH, MASS. Built between 1636 and 1675

Hewn end overhang type. The overhang is here entirely at the end of the house, and in both the second story and attic. The chimney is a good example of this period, with projection at back, indicating early additions to it when the "lean-to" was added. The windows have been restored according to legend with triple sash, but the panes of glass should not be divided by wood muntins, but rather with lead. The house is one of the claimants against the Fairbanks House for the distinction of being the oldest house now standing in America. It was undoubtedly, however, built at a later date.

The subject of the second Monograph of The White Pine Series will be "New England Colonial Houses of the Eighteenth Century," with descriptive text by Frank Chouteau Brown

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