

ROOFS

THE VARIETIES COMMONLY USED  
IN THE ARCHITECTURE OF THE  
AMERICAN COLONIES  
AND THE EARLY REPUBLIC  
BY AYMAR EMBURY, II

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MOUNT VERNON MANSION

*The hip roof is especially appropriate to a house of this size.*

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# ROOFS!

THE roofs are so important a feature of Colonial houses that the various types are often distinguished by names describing their roof shapes, but nobody ever has much to say about them, and few modern houses of Colonial precedent employ anything but the straight gable, or the gambrel roof. Our ancestors were more fluent designers than are we; problems of grade and symmetry which to us are insurmountable seemingly presented no problems to them, and where we content ourselves with the simplest of roof forms they used a multitude of types, sometimes for definite reasons—more often, perhaps, just because they liked them.

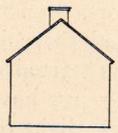
It is worth while to examine the sketches below just to see how great was the number of their varieties. Amusing names, some of them, calling up the circumstances under which they were built; the common household objects which inspired the forms, or the laws (either enacted or economic) which dictated the methods of roofing adopted by the farmers and sailors who formed so great a proportion of our early house-wrights.

There is a word which is not used, but should not be forgotten; we still have ship-wrights and wheel-wrights by name, but instead of house-wrights we have carpenters and cabinetmakers; even "joiners" has come to apply to a collector of societies, rather than

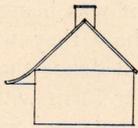
a branch of house carpentry; the legal profession holds its old terms and lawyers are still "Attorneys and Counsellors at Law" while the "Carpenter and Joiner" of the eighteen-sixties is now only the man behind the sign "Jobbing Done."

We will some day, it may be supposed, give up all our pitched roofs, be they steep or flat or gambrel, and roof our houses with flat slabs of waterproof concrete, or some new processed metal which will not shrink or split as it adapts itself to the hot sun of our long summers or the biting cold of our February nights; but when this occurs, and a pitched roof becomes to our descendants as fantastic as battlements on a stucco cottage, not only will we have lost one of our traditional habits of life, but our northern landscape will have lost the most picturesque accent (next to the church spires) which it possesses.

The house with the flat roof is not necessarily ugly or even unpicturesque; there are plenty of houses in Tunis and Spain and Guatemala to prove that the flat-roofed house may have a charm and beauty all its own; but beneath our northern skies, within our landscape, we must have roofs that show. Take, for example, the little picture at the head of the next page, showing the Quarters and Shops of Mount Vernon, the small clean white houses with their simple roofs marching along against the foliage of the great trees



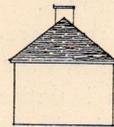
*Gable*



*Dutch Gable*



*Gables & Hip*



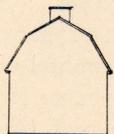
*Hip*



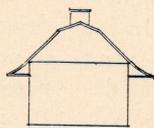
*Double Hip*



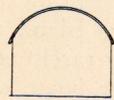
*Monitor*



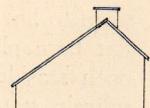
*Gambrel*



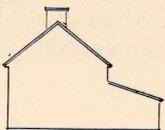
*Dutch Gambrel*



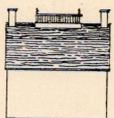
*Rainbow*



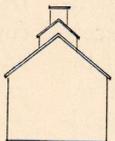
*Salt Box*



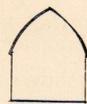
*Lean-to*



*Captain's Walk*



*Gable & Monitor*

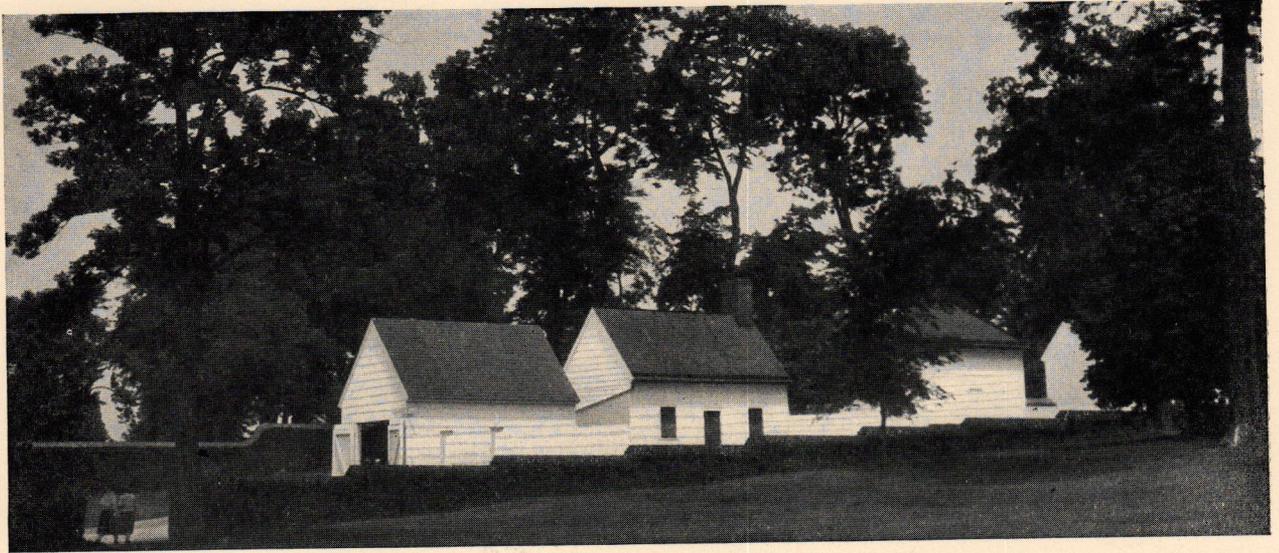


*Ship's*



*Flat*

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### OUTBUILDINGS OF MOUNT VERNON MANSION

*Simple gable roofs are perfectly suited to these small structures.*

full of little holes for the sky to peer through. Not only in this picture, but in reality, they are of breathtaking beauty, not because of any wealth of carving or delicacy of design, but because the simple masses of these early buildings attained once and for all a perfect attunement to our American scene. No one can do a better Parthenon; it is the perfect solution of a simple architectural problem in the Grecian setting, and there is nothing more perfect than perfection. So with our early American work, by some happy accident, or by the expression of obscure instinct, our forefathers achieved in these small white Colonial houses nestling in the shelter of great trees, an absolute rightness which cannot be improved.

Yet, just as in Greece there are other buildings than the Parthenon which are in their ways just as beautiful—the Ionic Column is unlike but parallel to the Doric—so in our Colonial houses there were many roof forms, each of which in its proper setting satisfies our æsthetic requirements—and the Colonial designers seem to have felt about them much as we do. On the flat bare plains of Long Island and the wind-swept open seaside dunes, they rarely erected the prim, demurely stately, two-story house of the villages. We find on Long Island the “salt-box” and the “lean-to,” in Jersey and along the Down East coast the “gambrel” or “rainbow,” types rarely seen in villages, except for the modification of the gambrel used by the Dutch around New York. The hip roof was the hardest to frame and only shows to advantage on buildings of considerable size. Perhaps for these reasons we find it used only on those houses where dignity, or at

least the pretense of it, was desired. The straight gable roof is apt to be over-dominant on the big house, and very likely it was this that caused the main building of Mount Vernon to be built with a hip roof, while the smaller outbuildings have, for the most part, gable ends.

Neither the material of the body of the house nor the part of the country in which it was built appears to have had much influence on the choice of roof design; we find wood, brick, and stone houses with hip roofs and gable roofs; we find hip roofs, gable roofs, and gambrel roofs in New England, around New York, and in the South; apparently the builders in all the Colonies knew what was being done in roofs, even if they didn't know how they were built; and there is occasional internal evidence that the builders started a roof of some peculiar form without knowing just how it was to be completed, and finished it by the light of pure reason, rather than by the lamp of experience.

There was, however, a strong local flavor in the design of roofs, just as there was in the choice of scale of ornament; the gambrel of New England was composed of different pitches from that of Maryland, the Pennsylvania gable roof (there much the most popular type) had different relations of height and breadth from those in Massachusetts and Virginia, although, curiously enough, the Pennsylvanians arrived at gable ends of almost exactly the shape common on the eastern end of Long Island; the New England roofs were less steep and the Southern ones steeper. That variance was most likely temperamental, since the greatest difficulty in the way of making a roof tight

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was snow, and snow is supposed to be more common—one might almost say more prevalent—in New England than in Carolina.

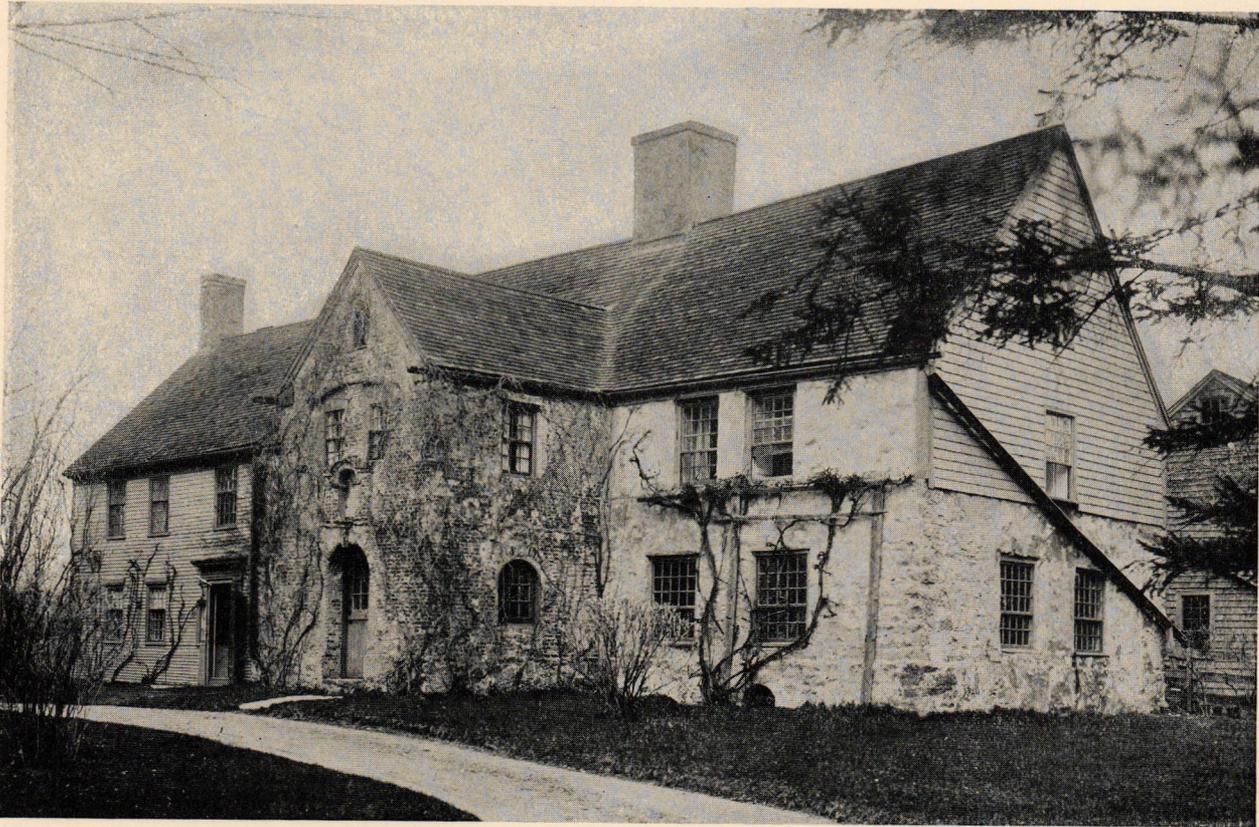
Construction also influenced roof shape, although construction was often more influenced by tradition and desire than by economic factors. In New Jersey for example, the Dutch settlers used much stone; and although stone has been discovered in New England, stone houses have not (“What, never?” “Well, hardly ever!”) and although lime was scarce and dear in New Jersey, the Dutchman built of stone just the same; for mortar he used mud. Mud is not hydraulic; so they



NORTON HOUSE, GUILFORD, CONNECTICUT  
*Built circa 1690.*

protected these mud-built houses by wide overhanging roofs, and to get the overhang they swept the eaves out in great curves, producing roof lines of real grace and charm, and almost impossible to ventilate, so that the second stories of these Dutch houses were too hot to sleep in. Papa and Mamma slept on the ground floor, while the children stayed awake on the second.

One style of roof only was peculiar to a single section—the monitor roof to New England. Beginning perhaps as a double-hip roof—a sort of hipped gambrel—it was found easier to make the junction between the two pitches tight

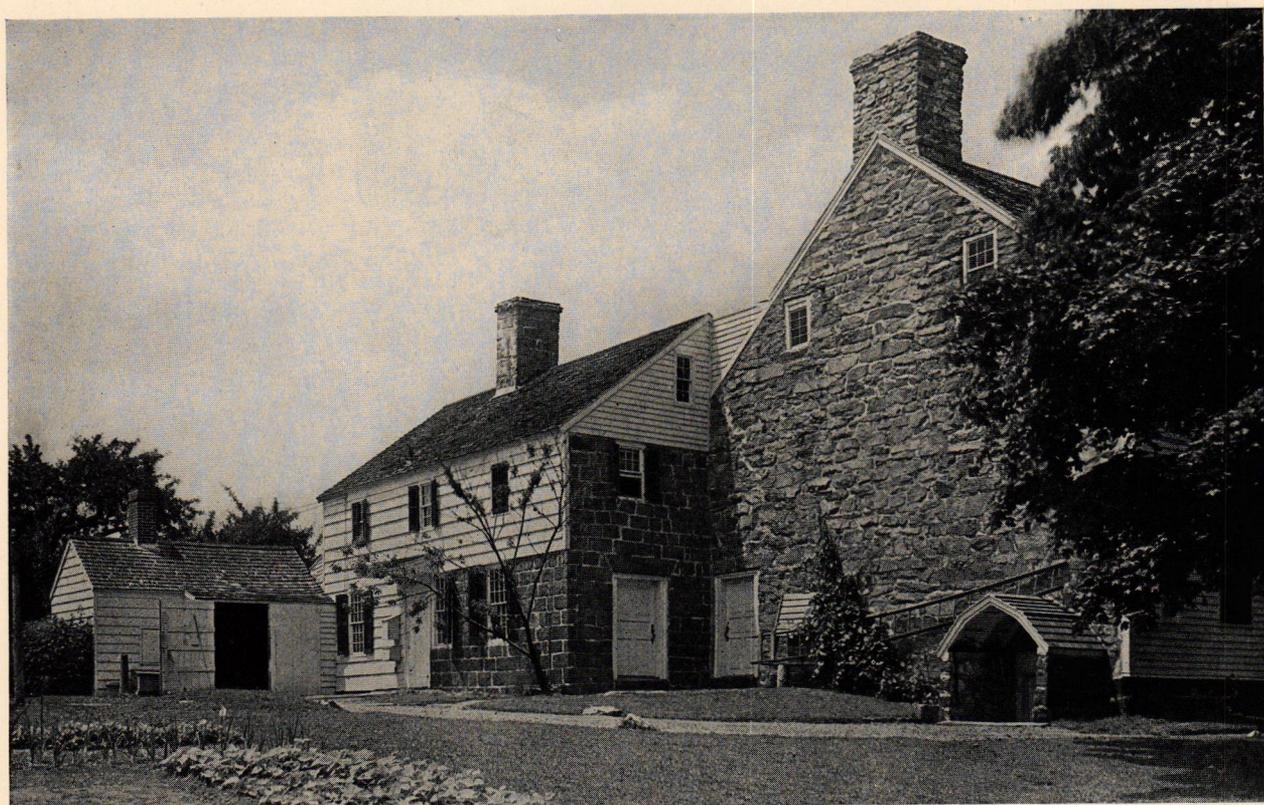


SPENCER-PIERCE HOUSE, NEWBURY, MASSACHUSETTS, BUILT 1650  
*The straight gable roof on an unusual house suggestive of an earlier English prototype.*

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if a vertical board were introduced between them: such a board can be seen on the roof of the Prince House or in a gable-on-hip roof below it. Then perhaps some bright young man bethought himself that if this were raised a foot or two, there would be space for air and light; and behold! the monitor roof. Sometimes this object was accomplished by a superimposed gable, or by running the ridge of a hipped roof out beyond the structural hip and putting in a window, giving the gable-on-hip roof; sometimes it was flattened and a captain's walk built; and sometimes a general amalgamation of monitor, cupola, and captain's walk resulted in a sort of enclosed bridge deck as in the house at Lyme, New Hampshire, a very handsome

farmers. One would have expected the opposite, since our much greater variety of materials makes very simple the problems that must have sorely puzzled our ancestors. The average Colonial house was roofed with shingles; a few in Pennsylvania and the Vermont-New York line with slate; a very few with metal, lead, or at the end of the period, tin-plated iron. Lead, for many years the only material available for flashing, was beaten out by hand with small sheets and was enormously expensive, so that flashing was very sparingly used and in many houses was absent altogether. Our modern builders would certainly be puzzled if asked to make a roof tight without it, and most carpenters would rebel if asked to shingle a roof



THE MORRIS-PURDEE HOUSE, MORRIS COVE, NEW HAVEN, CONNECTICUT  
*In 1670, architects did not feel it necessary to receive minor roofs directly on major ones.*

development, beyond which nothing seemed possible.

Nor have we gone further than they; perhaps, on the contrary, we have retrogressed, if by retrogression we mean a failure to exploit the available possibilities. As was said above we commonly use three forms of roof only, the gable, gambrel, and hip; the more complicated forms involving curves, such as the ship, rainbow, and Dutch, rarely appear, if we except the state-designed barns and silos built by our progressive

with a pitch of 15°, or a rainbow roof, and make it watertight. One trick of the older builders we are beginning to use again, that of canting the ridge lines at the chimneys, was originally a trick to shed water from the chimneys, but is now done to soften roof lines.

Much of our modern "Colonial" work is hard, wiry, correct, and dull; greater variety in roof lines is essential to improvement in this respect.

AYMAR EMBURY, II.

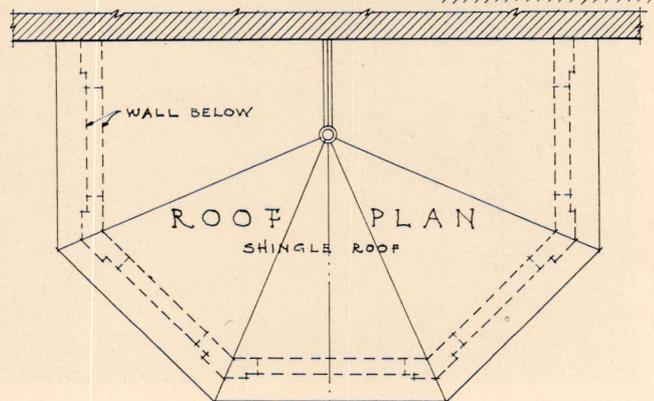
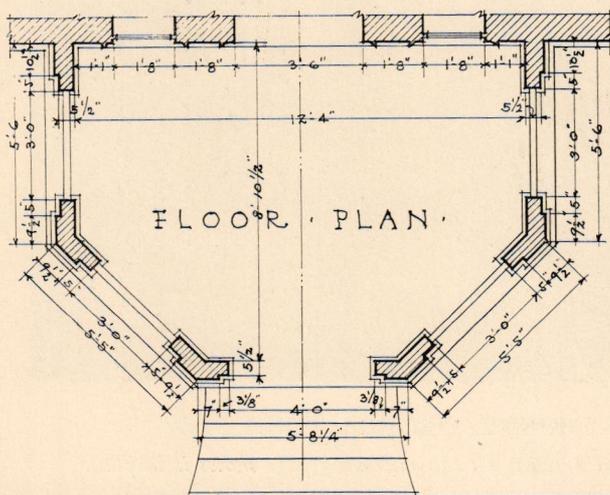
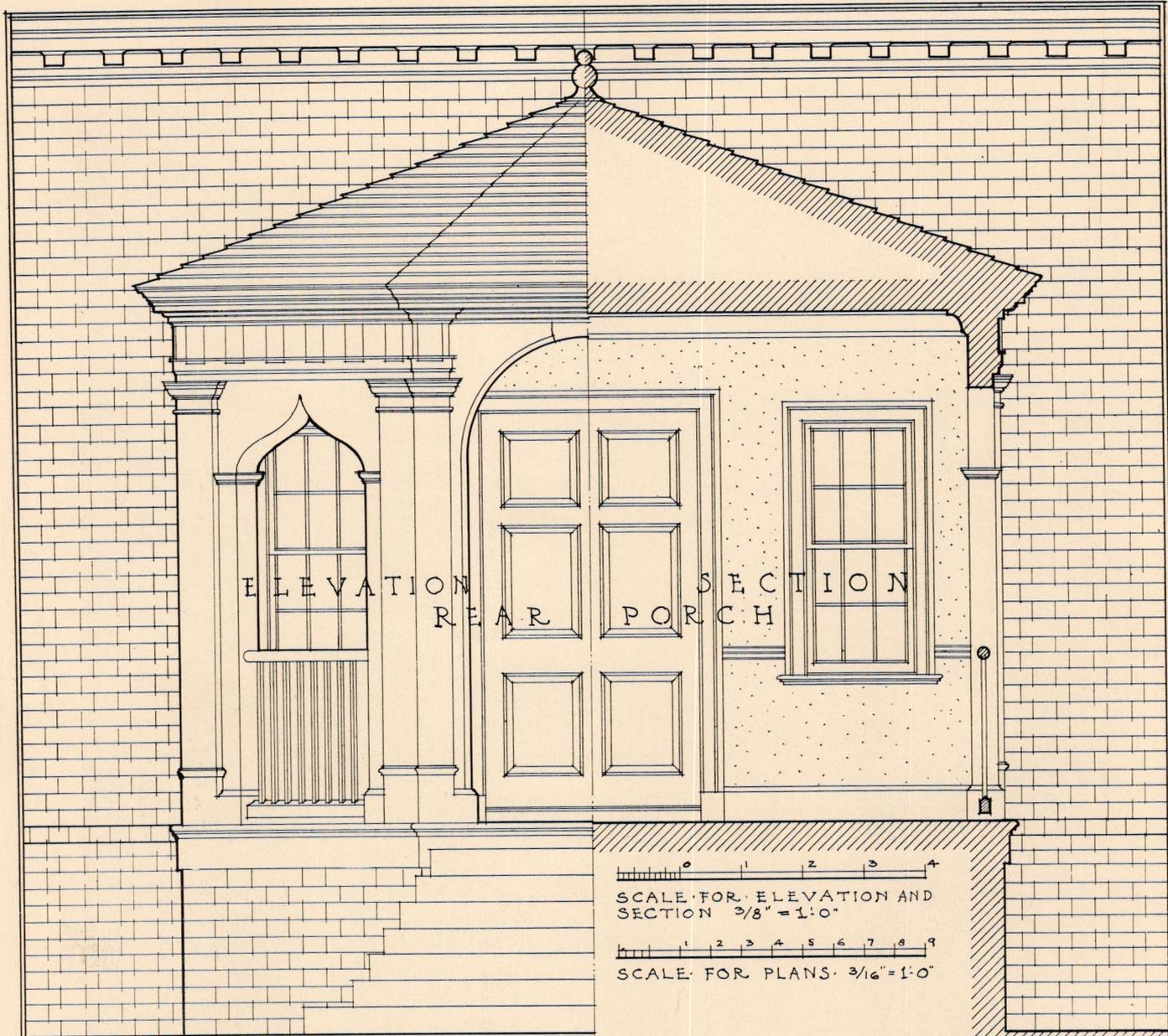
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REAR PORCH, GUNSTON HALL, FAIRFAX COUNTY, VIRGINIA, BUILT 1758

*An example of an octagonal hip roof against a wall. A detail drawing on the following page shows it in plan.*

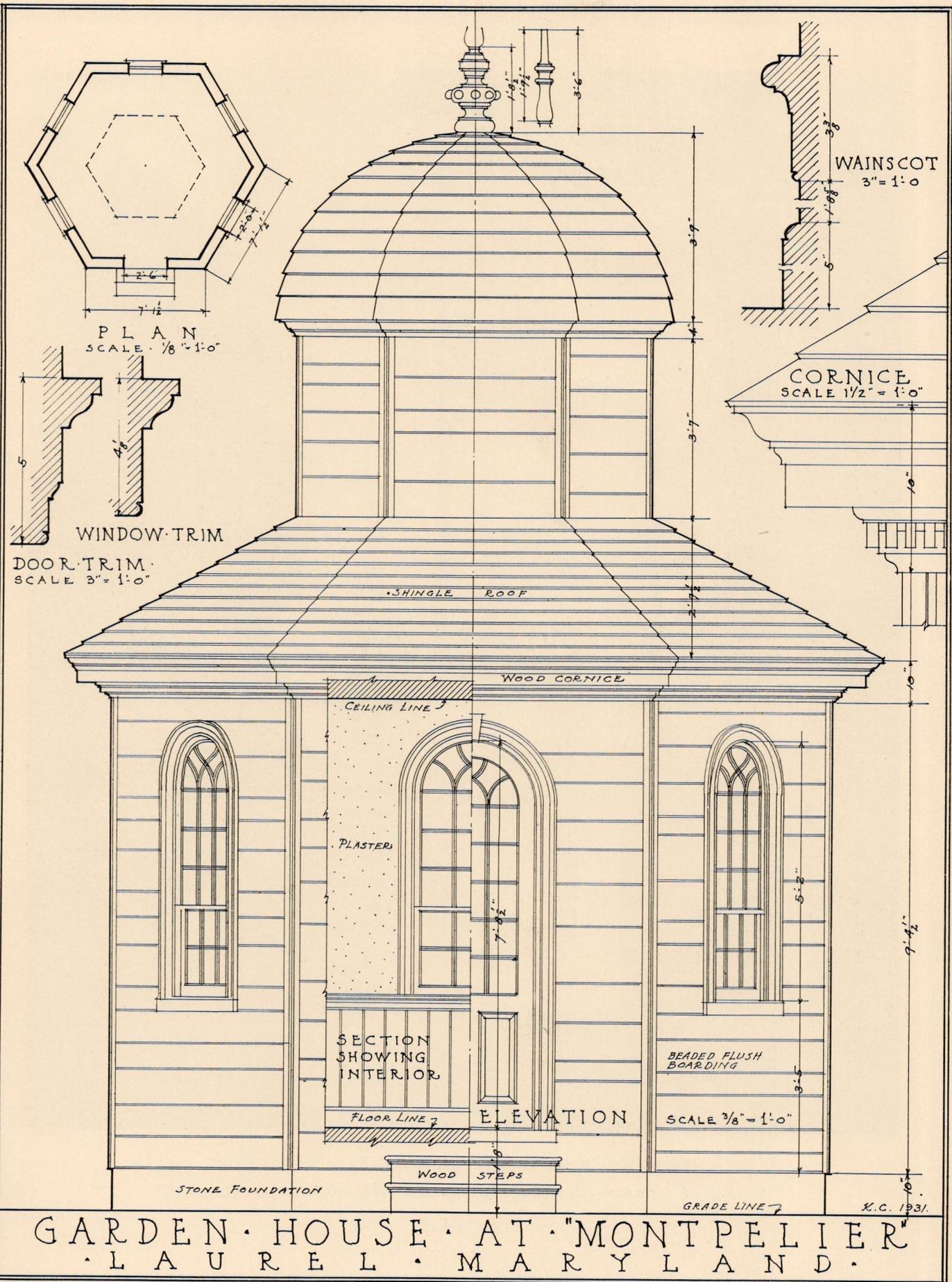
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MEAS & DRAWN KENNETH CLARK 1930.

GUNSTON HALL  
FAIRFAX COUNTY VIRGINIA

Drawing reproduced exactly at scale marked.



GARDEN HOUSE AT "MONTPELIER"  
 LAUREL MARYLAND

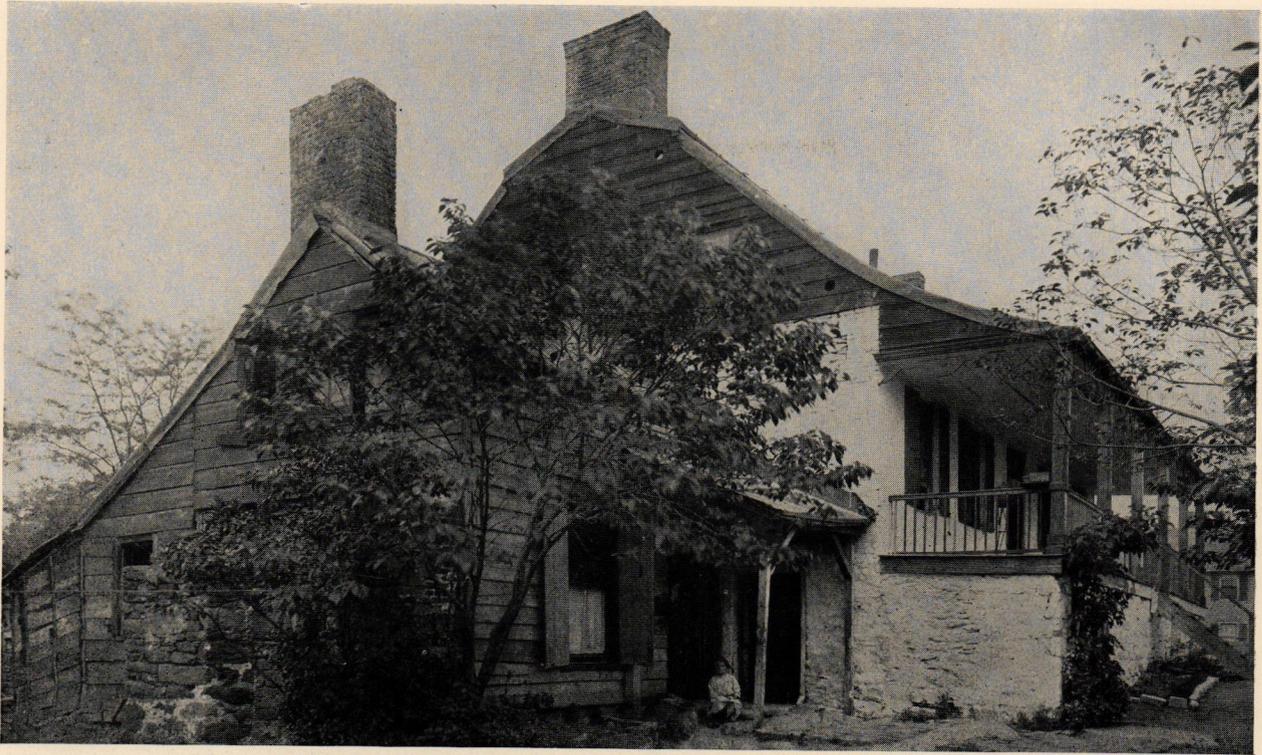
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GARDEN HOUSE, MONTPELIER, LAUREL, MARYLAND

*A hexagonal dome over a hexagonal hip roof. See detail drawing on preceding page.*

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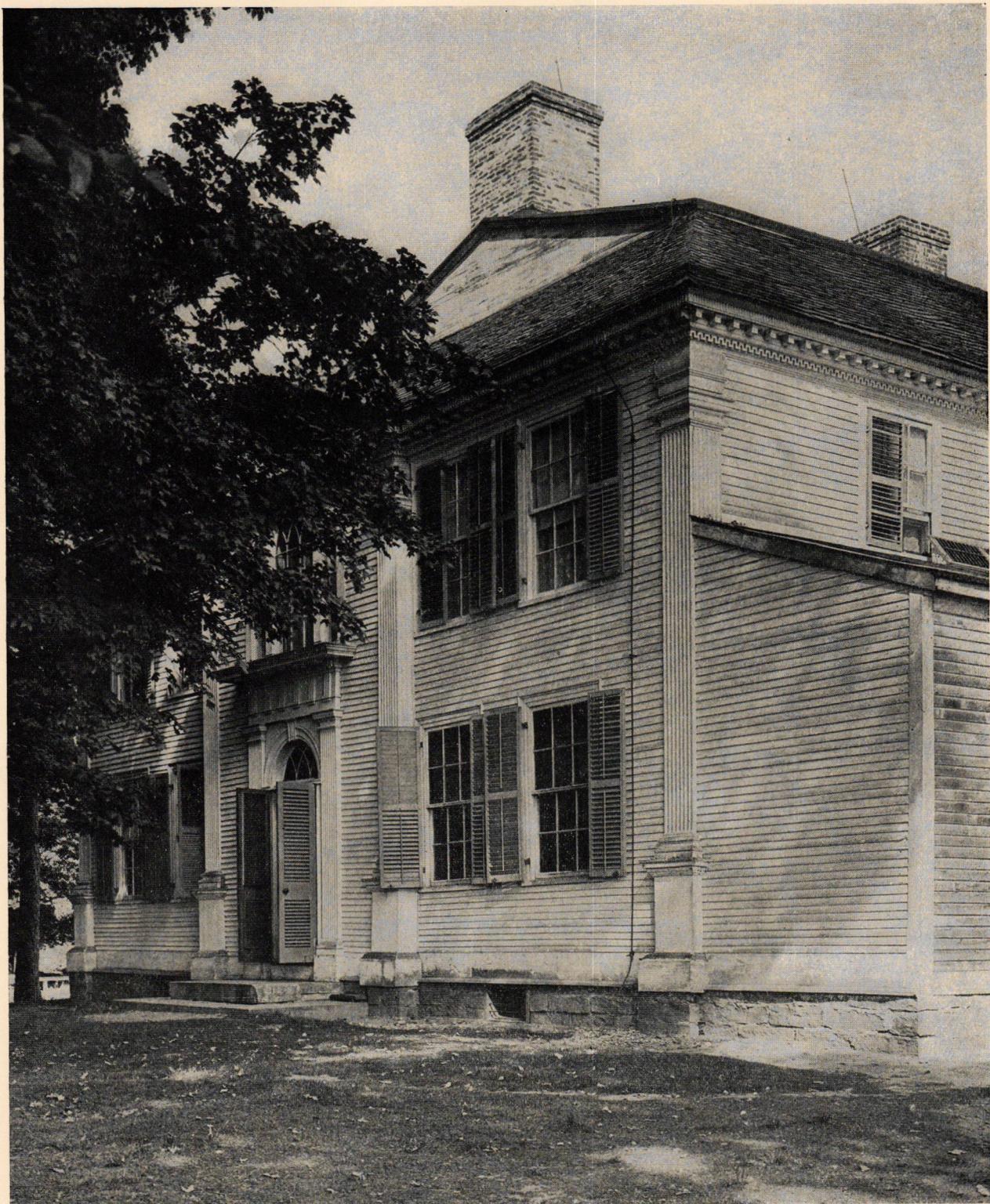
THE DYCKMAN HOUSE, NEW YORK, N. Y., BUILT 1787



THE JOHN P. B. WESTERVELT HOUSE, CRESKILL, NEW JERSEY

*Main house built with mud mortar, needing protection on gable end. Addition built with lime mortar and gable end unprotected.*

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THE CAPTAIN JOHN CLARK HOUSE, SOUTH CANTERBURY, CONNECTICUT  
*Built in 1732, enlarged about 1790. Gable on hip roof to receive chimney.*

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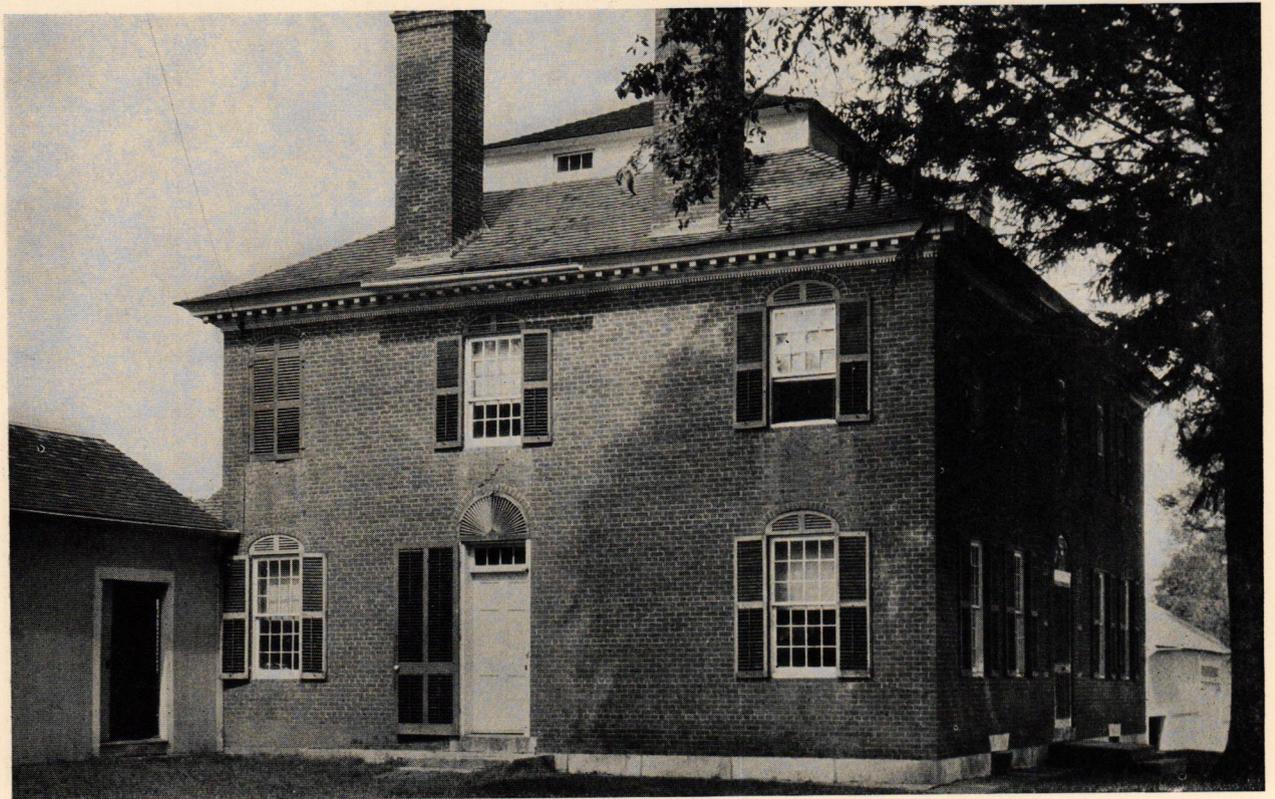
THE CHAMPION HOUSE, EAST HADDAM, CONNECTICUT, BUILT 1794

*A hip roof so flat that a balustrade appears to be necessary.*

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GOVERNOR TRUMBULL HOUSE, LEBANON, CONNECTICUT, BUILT 1753  
*A hip roof with short ridge.*



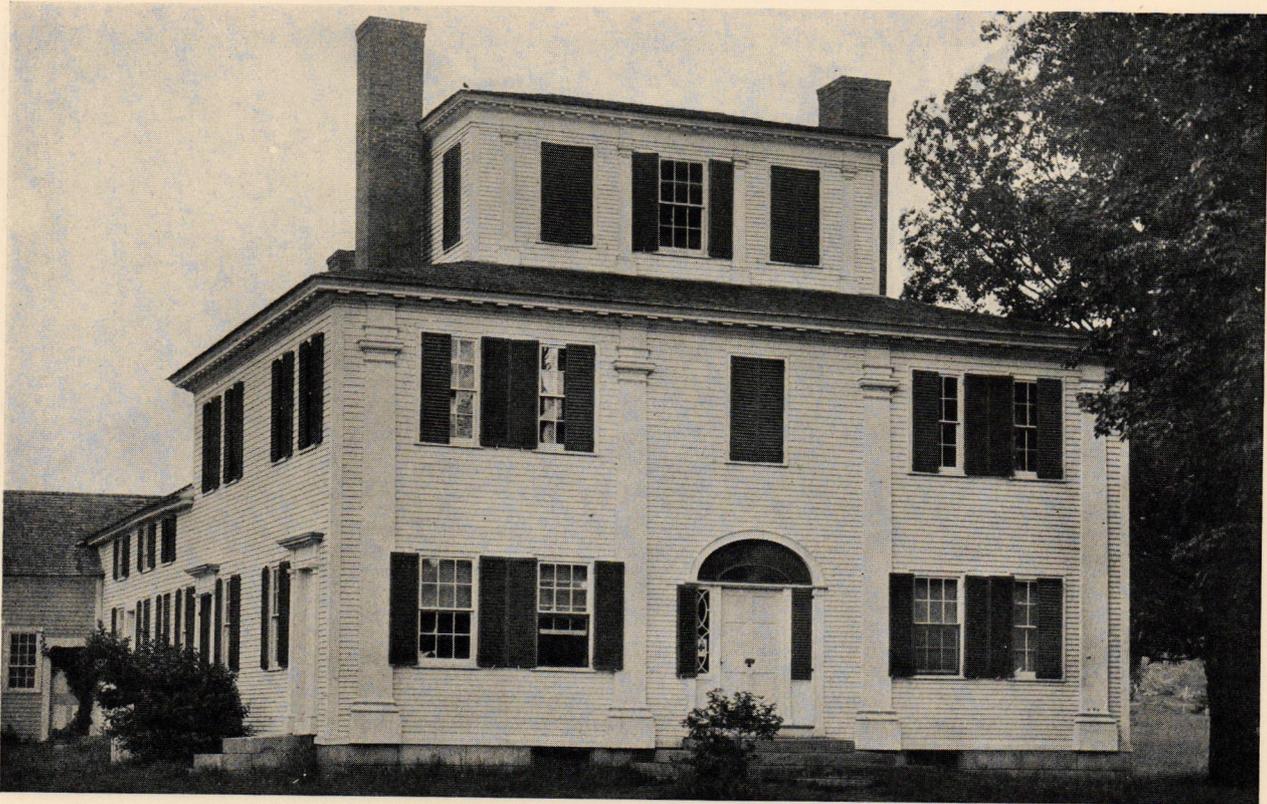
THE WITTER HOUSE, CHAPLIN, CONNECTICUT, BUILT 1828  
*Early type of monitor used on house of later date.*

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A HOUSE NEAR WESTMORELAND, NEW HAMPSHIRE

*A hip roof with a lean-to which was not a later addition but part of the original structure.*



HOUSE AT LYME, NEW HAMPSHIRE

*A late and handsome development of monitor hip roof.*

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THE PRINCE HOUSE, FLUSHING, NEW YORK  
*A gambrel and gable roof used on a late 18th Century house.*



A 1757 HOUSE, EAST GREENWICH, RHODE ISLAND  
*Another example of the gable on hip roof—this time with a window.*

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