No. 660,566. Patented Oct. 30, 1900.

S. E. GAGE.

MEANS FOR RENEWING HOUSE WALLS.

(Application filed June 19, 1900.)

(No Model.)

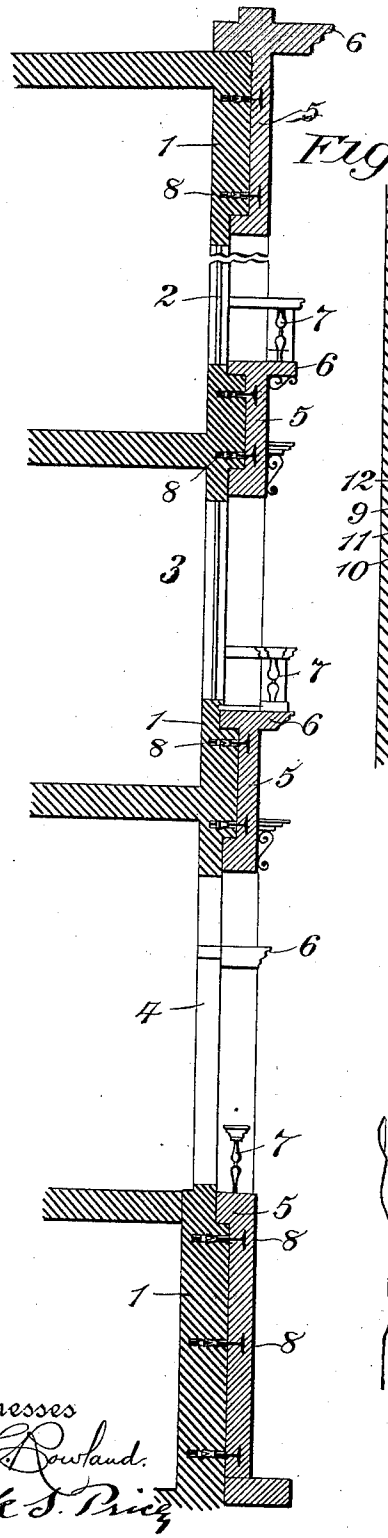


Fig. 1.

Fig. 2.

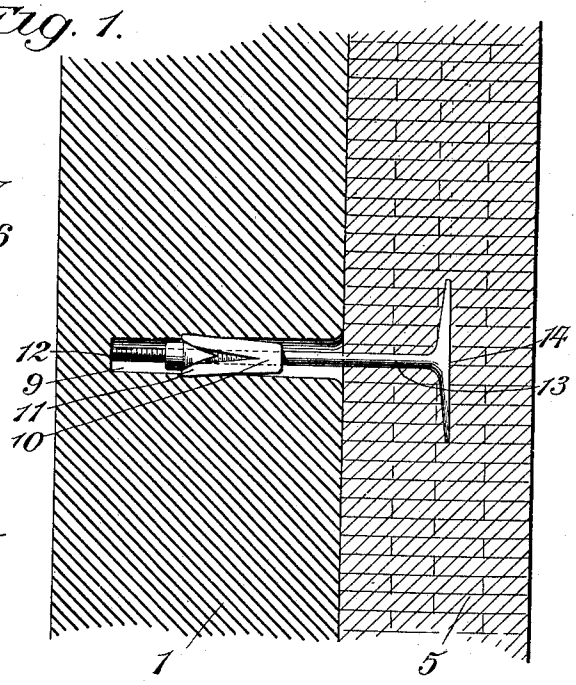
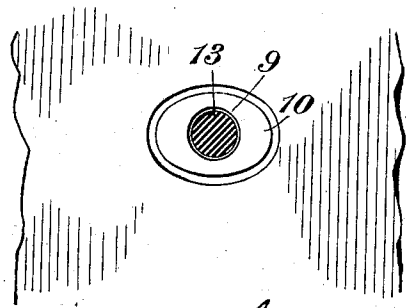


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL E. GAGE, OF NEW YORK, N. Y.

MEANS FOR RENEWING HOUSE-WALLS.

SPECIFICATION forming part of Letters Patent No. 660,566, dated October 30, 1900.

Application filed June 19, 1900. Serial No. 20,817. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. GAGE, a citizen of the United States, residing in the borough of Queens, city of New York, in the county of Queens and State of New York, have invented a certain new and useful Improvement in Means for Renewing House-Walls, of which the following is a specification.

In many instances, particularly in large cities, it is desirable to change the exterior of stone or brick houses to accommodate the taste of a new owner or to give an old building a new aspect.

It is the object of my present invention to provide a novel and effective means whereby house-walls made of stone, brick, or the like may be renewed or transformed and at the same time actually strengthened without the expense or danger of tearing down any portion of the building. Where the furnishing and decoration of a house are at all expensive, there is considerable loss incident to the entry of workmen with tools and materials, and this is increased where the nature of the work makes it necessary to even temporarily disarrange or disfigure the walls of any rooms. By the use of my invention these difficulties are avoided, since it is not necessary for the workmen even to enter the house to be altered, and neither by piercing nor hammering is the plaster or other interior structure disturbed.

One preferred form of my invention is shown in the accompanying drawings, wherein—

Figure 1 is a sectional view of a house-front provided with my improved self-supporting house-facing or masking-wall. Fig. 2 is a sectional view, on a large scale, of a portion of the old and new wall, showing in detail one form of expansion-anchor adapted to be used; and Fig. 3 is a view in transverse section of one anchor and the hole provided for its reception.

In the drawings the wall of the original structure is shown at 1, the same being pierced with windows and door 2, 3, and 4 on the various floors. In front of this original wall a masking-wall 5 is built of such materials and according to such a style of architecture as may be desired. The attainable variation from the exterior appearance of the old building is exemplified in Fig. 1 by the copings 6 and balustrade 7. In this figure the windows of the facing-wall are shown in coincidence with those of the old wall; but it is within the scope of my invention to build over the old windows or to otherwise change the original number of windows, if desired.

As will be seen from Fig. 1, my improved masking-wall is in no sense a mere skin-covering applied to and supported from the old wall. Such an arrangement would create an added weight which would greatly endanger the original structure. My masking-wall is a new self-supporting structure whose weight is carried upon its own base and acts merely as a mask and a reinforcement for the building.

It is obvious that to insure the stability of the new wall it should be fastened to the original structure. It is extremely desirable that this securing process should be carried out without impairing the integrity of the interior wall-surfaces, and the fastening substantially as shown is therefore an important feature of my present invention. I employ what I term "expansion-anchors," entering appropriate cavities in the original wall, as shown in small scale at 8 in Fig. 1. These are best used by placing the anchors in their cavities, properly secured, and then building the masking-wall around the anchors, as shown in Fig. 2 in section. When a brick facing-wall is used, the head of each anchor preferably lies between courses of brick embedded in mortar. Where stone blocks are employed, the head of each anchor lies in an appropriate recess cut into a stone.

The preferred form of expansion-anchor employed by me is shown in Figs. 2 and 3. An elliptical or otherwise non-circular cavity 9 is cut into the wall 1 at intervals, and in this rests the expansible gripping-piece 10, provided with jaws 11, between which a wedge 12 is adapted to be thrust for the purpose of forcing said jaws apart. The jaws 11 may be permanently joined at their bases, as shown, or they may constitute separate pieces without departing from the scope of my invention. Between the jaws and through an appropriate aperture in the wedge 12 there passes the shank of a bolt 13, whose head 14 is expanded, so as to bear upon a considerable surface of the outer wall. The shank

13 passes loosely through the expansion-piece 10, but is threaded into the wedge 12, which acts as a nut thereon. In the process of construction, the cavity 9 having been formed, the end of the shank 13, with the nut and expansion-piece, is introduced into said cavity, the expansion-piece being collapsed, so that is is easily pushed into place. This being done, the shank is drawn outward sufficiently to bring the thin edge of the wedge 12 between the jaws 11, if it be not already between them. Then the bolt is turned in such a direction as carries the screw end of the shank inward toward the bottom of the cavity 9. At first the nut and jaws tend to turn with the shank; but on account of the shape of the cavity and expansion-piece (see Fig. 3, for instance) more than a slight preliminary movement is prevented and further turning brings the bolt end down against the bottom of the cavity 9, as shown in Fig. 2. The length of the bolt 13 14 should be such that when the masking-wall is built up over the protruding anchors this head may rest between inner and outer courses of the bricks or stones composing the masking-wall, as indicated in Fig. 2. It is evident that by turning the bolt after the end thereof touches the bottom of the cavity 9 the wedge-nut 12 is drawn outward, and the jaws 11 are thus pressed outward until the whole is tightly jammed in place. The turning of the head is accomplished and the anchor finally secured in place before the new wall is built around it.

I am not to be understood as confining the scope of my present invention to the precise type of expansion-anchor herein shown and described, as other kinds can be used in this connection and without piercing the original wall.

By the use of expansion-anchors, as herein shown and described, the more or less insecure walls of an old house are not shaken or pierced, as is the case with driven fastenings or bolts passing through the walls. An increased security and strength is thus assured, as well as greater convenience and rapidity of operation.

What I claim is—

In combination with the wall of a house having non-circular cavities therein, a masking-wall supported upon its own base in front of said original wall, bolts having heads embedded in said masking-wall and extending into said cavities so as to abut upon the bottoms thereof expansion-pieces within said cavities and coöperating wedges threaded upon said bolts substantially as described.

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