

No. 742,714.

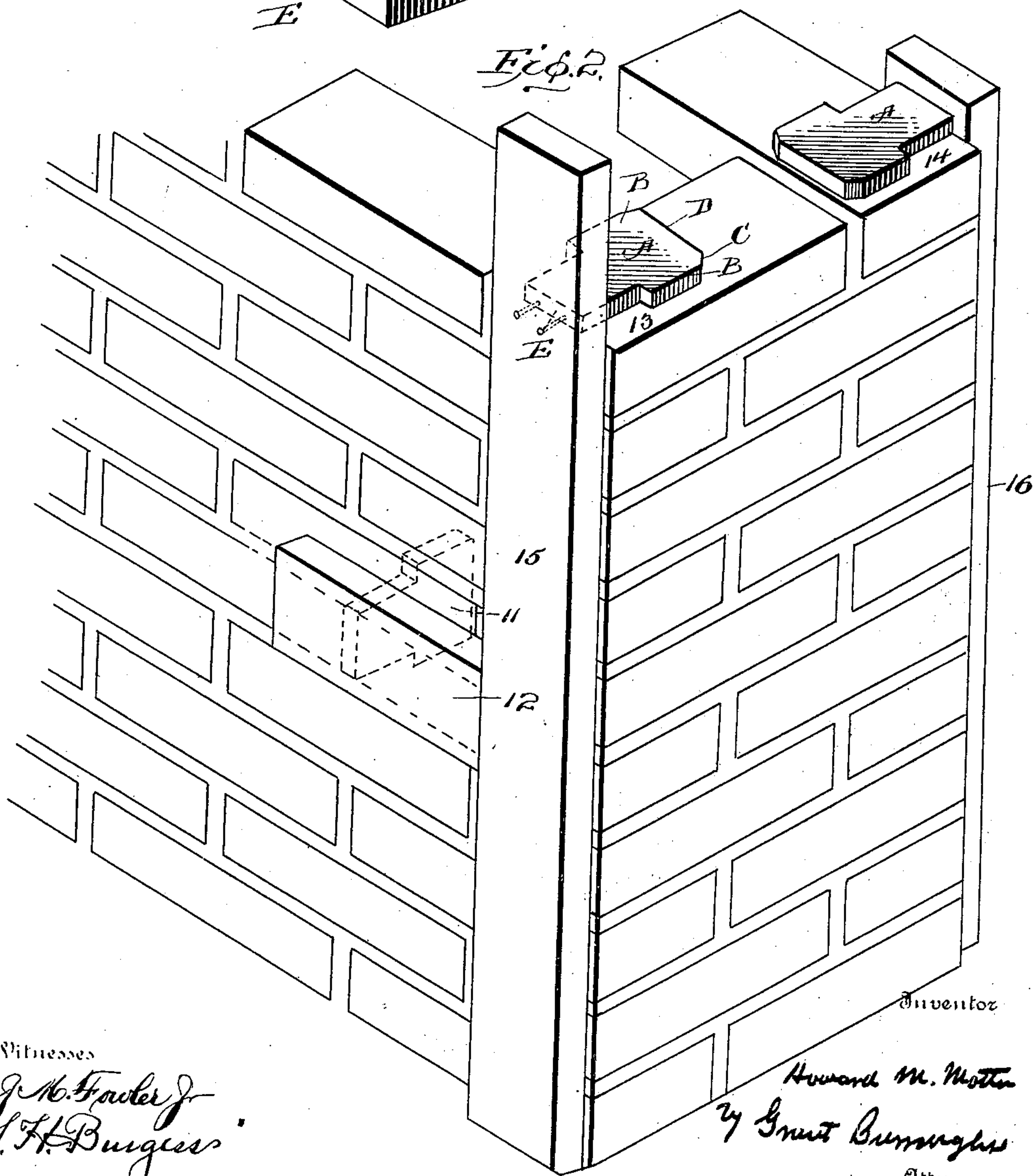
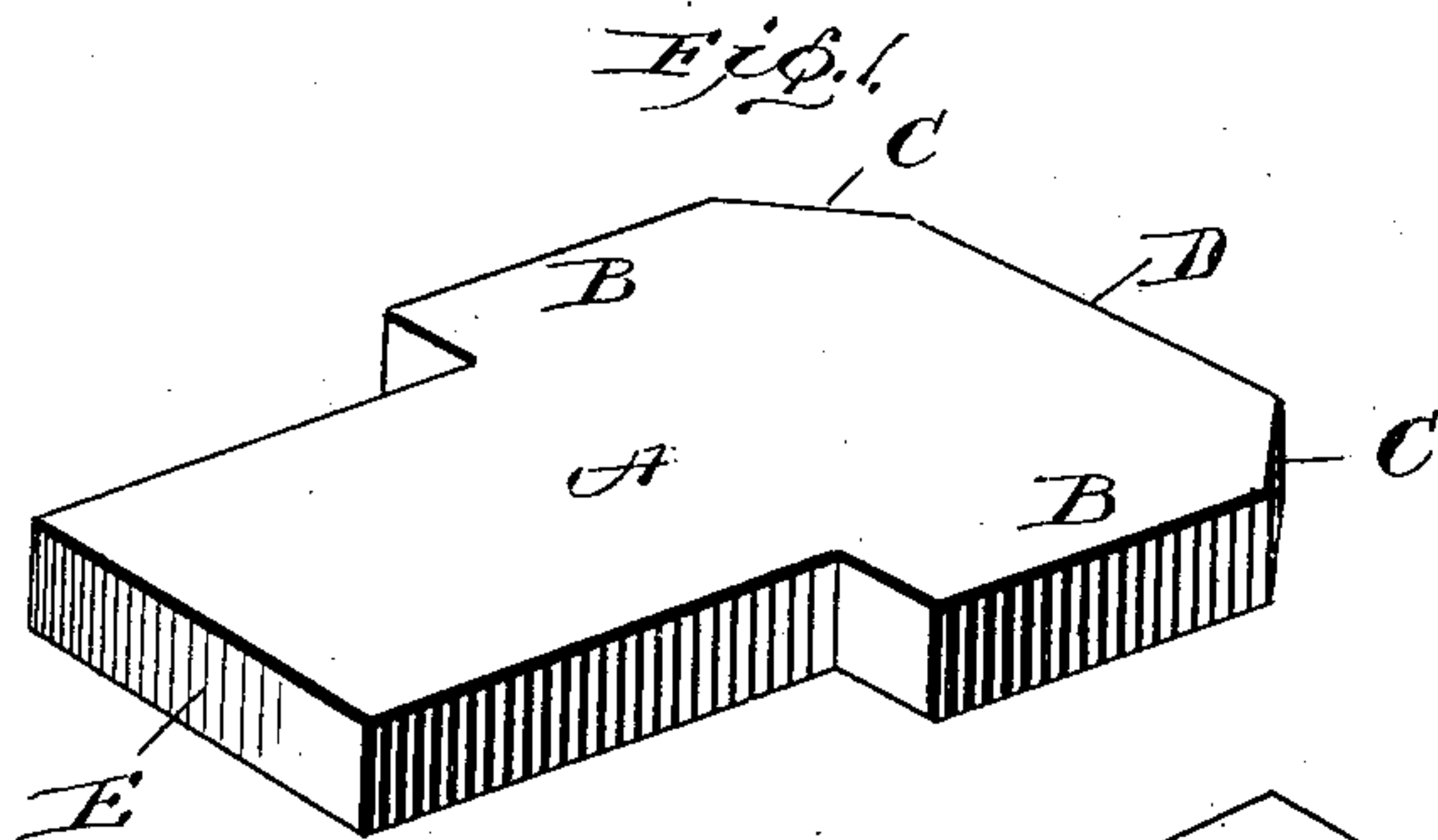
PATENTED OCT. 27, 1903.

H. M. MOTTU.

WALL PLUG.

APPLICATION FILED AUG. 8, 1903.

NO MODEL.



~~Inventor~~

Howard M. Mott
by Grant Burroughs
Attorney

Witnesses

J. M. Fowler Jr
J. H. Burgess

UNITED STATES PATENT OFFICE.

HOWARD M. MOTTU, OF BALTIMORE, MARYLAND.

WALL-PLUG.

SPECIFICATION forming part of Letters Patent No. 742,714, dated October 27, 1903.

Application filed August 8, 1903. Serial No. 168,826. (No model.)

To all whom it may concern:

Be it known that I, HOWARD M. MOTTU, a citizen of the United States, and a resident of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Wall-Plugs, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The invention relates to improvements in wooden wall-plugs of that description which are placed in masonry for receiving nails driven through extraneous objects, such as grounding and stripping, to hold the latter in place. The wall-plugs in ordinary use are elongated pieces of wood driven into openings cut into the completed masonry for their reception. The latter are objectionable, as considerable time and labor are required to insert them in the masonry, as the masonry is disfigured and often weakened by cutting the necessary holes, as their natural formation is injured through being battered by the driving necessary to force them into place, which causes the rapid decay of the wood and consequent loosening of the fastening and as they are liable to become loose in their holes through shrinkage of the wood comprising them and their holding efficiency thereby lessened.

The invention in the present instance has for its object the provision of a wooden wall-plug that can be built into the masonry during the course of construction of the latter, thereby saving the time and labor required in inserting the ordinary plug and also avoiding the disfigurement and weakening of the wall occasioned by the cutting into the wall after its completion, one that requires no driving to force it into place, and thereby avoiding injury to the natural formation of the wood and consequent liability to decay caused by being battered during the driving, and also one which would not become loose through the shrinkage of the wood comprising it.

It furthermore has for its object the provision of a wall-plug which would not be injured by driving nails into the same.

The invention consists, primarily, of a

wooden wall-plug cut lengthwise of the grain of the wood, with its front or nailing face and its back or abutting face directly opposite to each other and of substantially the same dimensions and provided with laterally-projecting shoulders at its back end.

It further consists in the novel construction, which will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a perspective view of a wall-plug embodying the invention. Fig. 2 is a perspective view of a section of masonry, showing an application of the invention.

The wall-plug consists of the main or body portion A and the shoulders B, projecting from the opposite sides of the body portion at one end of the latter. The rear corners of the shoulders are cut away, as at C, so that the area of the back or abutting face D will be the same as the area of the front or nailing face E and so that the back and front will be directly opposite to each other. The plug is made of wood and is cut so that the grain of the wood extends longitudinally through the plug. The longitudinal and lateral dimensions of the plug are such as not to exceed, respectively, the width and thickness, together with the adjacent bonding material, of the ordinary brick, and the thickness of the plug is about the same as that of the ordinary layer of bonding material interposed between two adjacent bricks. By giving the plug these dimensions it can be built into the ordinary brick wall at any desired point during the course of construction of the masonry. The plug is embedded in the bonding material between two or more bricks with its front or nailing face E flush with the face of the wall and the back or abutting face extending into the masonry. As the shoulders B project into the surrounding bonding material, they will prevent the withdrawing of the plug, even though the wood comprising it should shrink to a considerable extent.

In Fig. 2 is shown a section of masonry illustrating the use of the plug in securing grounding in place. The wall is constructed of brick in the usual manner, and during the course of erection the plugs are built in at

places suitable to receive the nails of the grounding, which places have been predetermined by the architect and indicated in his plans to guide the mason. For an instance, 5 at 11 the plug is shown interposed between the ends of two adjacent bricks, and into it are driven the nails of the grounding 12, and at 13 and 14 the plugs are flatwise on a layer of bricks between which and the next upper 10 layer they are to be embedded. To these plugs at 13 and 14 the groundings 15 and 16 are respectively nailed. In these instances, as the shouldered ends of the plugs are innermost, the plugs will be firmly embedded in 15 the bonding material and cannot be withdrawn unless their shoulders break off or the bonding material is displaced.

The object in cutting away the inner corners, as at C, of the shoulders B is to prevent the splitting off of the shoulders by the 20 driving of nails into the front or nailing face of the plug when the latter is in position. It often happens that the plug is not fully embedded in the bonding material and that a 25 space is left between the back or abutting face D and the surrounding material. Should the shoulders of the plug be not cut away and remain square and should a space exist between the back D and the surrounding material and the shoulders alone resting against 30 the adjacent material, the shoulders would have to bear the thrust from the blows of driving the nails into the nailing-face of the plug. This would have a tendency to cause 35 the shoulders to split off from the main body of the plug, and the efficiency of the plug for holding purposes would be impaired; but by cutting away the inner corners of the shoulders the liability of a space being left 40 back of the abutting face of the plug would be lessened, and as the area of the back or abutting face of the plug would be equal to that of the front or nailing face all of the strain would come on the back or abutting face and 15 the shoulders would not have to bear the

same, and consequently would not be so liable to injury. Also in forming a plug with square corners it is very apt to break from the stock before the kerf is completed by the severing-machine, and thereby form a corner-spur. 50 The latter will appear on the abutting face of the plug when a transverse cut is made and on the side when a longitudinal cut is made. Should a plug having a spur on its back or abutting face abut a solid backing with an 55 intervening space, a blow on the nailing-face of the plug would have a tendency to split off the shoulder from which the spur projects. A plug having a spur projecting from its side would be too wide to fit the space between 60 two bricks and would prevent a proper seating of the upper one; but by cutting away the corners of the plug the formation of spurs would be avoided and the objectionable features caused by them eliminated. 65

Other features of the invention could be pointed out, but sufficient has already been disclosed to illustrate its advantages.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is— 70

1. As an improved article of manufacture, a wooden wall-plug extending longitudinally of the grain of the wood with its front or nailing face and its back or abutting face of substantially the same area and provided with laterally-projecting shoulders adjacent to its back or abutting face. 75

2. As an improved article of manufacture, a wooden wall-plug extending longitudinally 80 of the grain of the wood with laterally-projecting shoulders adjacent to its back or abutting face and with the rear corners of said shoulders cut away.

In testimony whereof I hereunto affix my 85 signature in the presence of two witnesses.

HOWARD M. MOTTU.

Witnesses:

A. W. CHANDLEE,
THEODORE MOTTU.