

No. 889,700.

PATENTED JUNE 2, 1908.

C. LOVELY.
WALL PLUG.

APPLICATION FILED MAY 13, 1907.

Fig. 1.

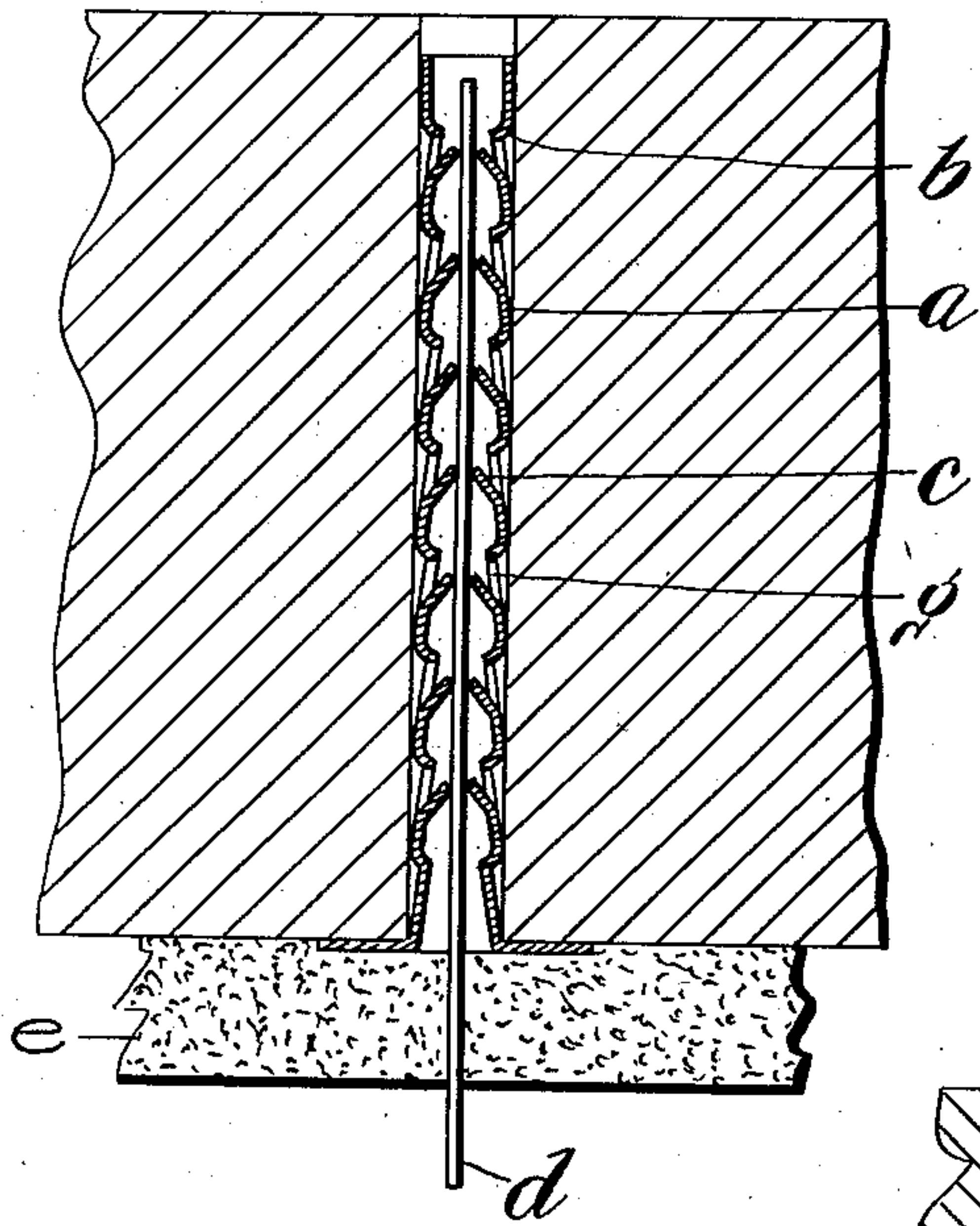


Fig. 2.

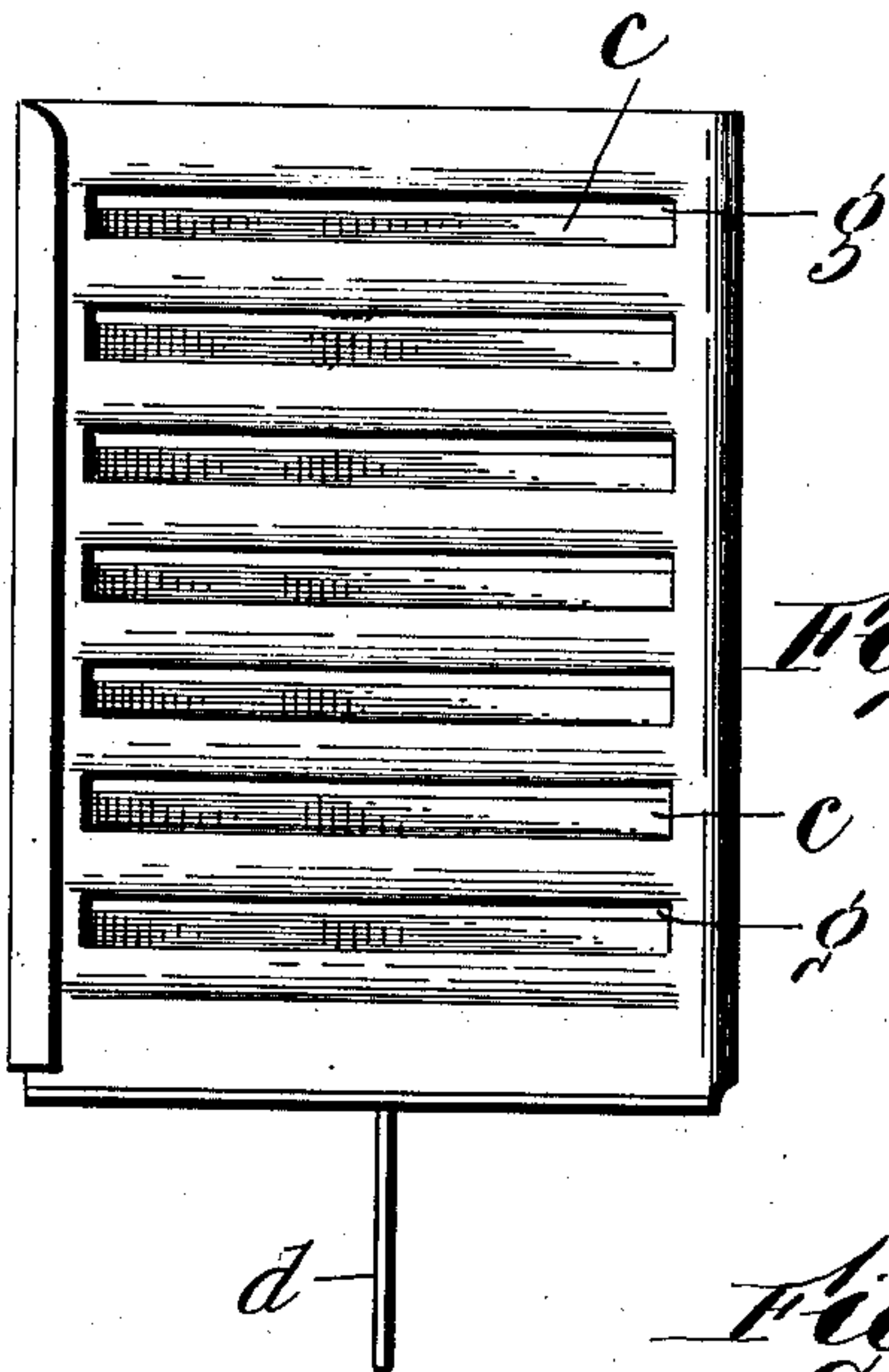
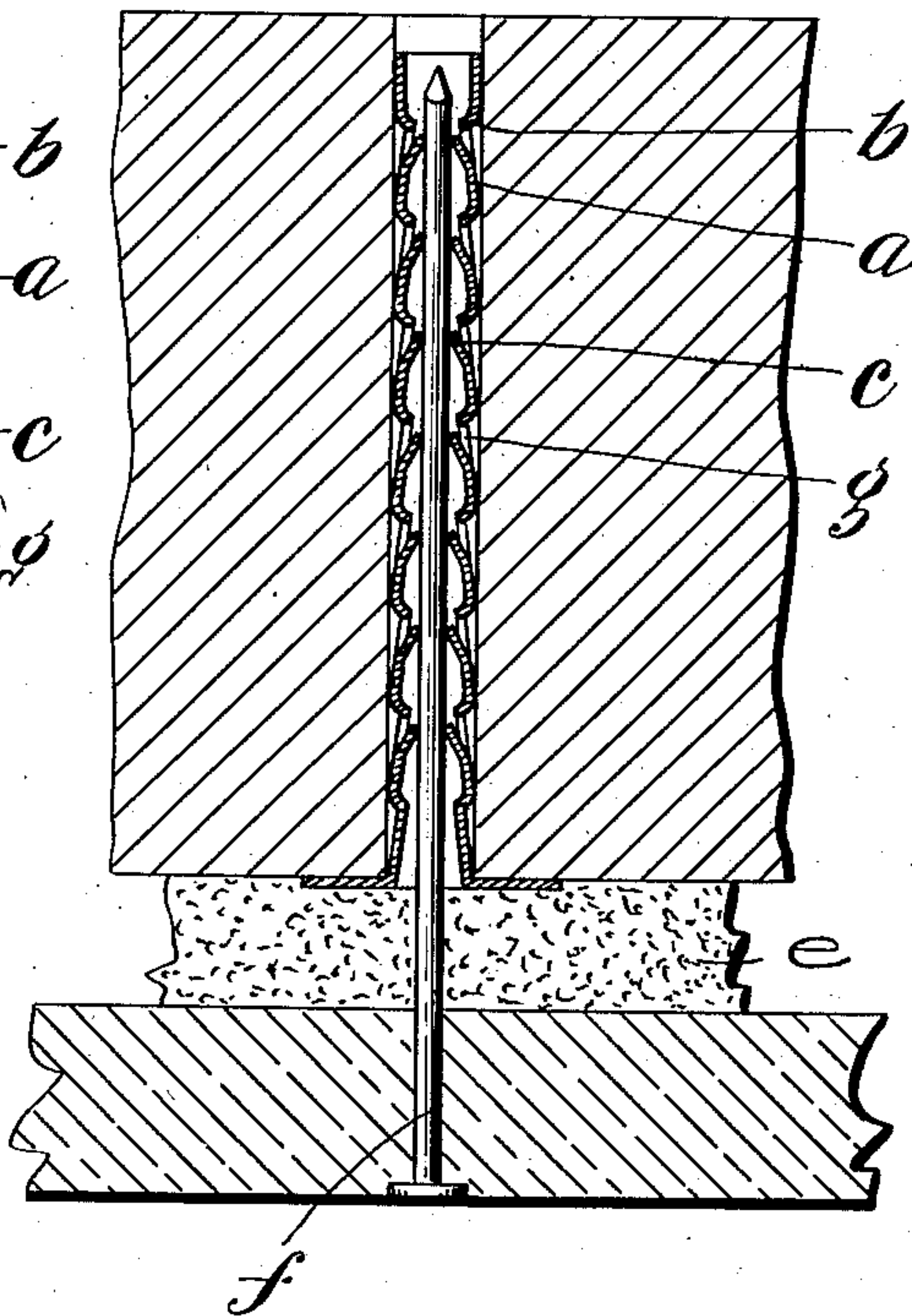


Fig. 3.

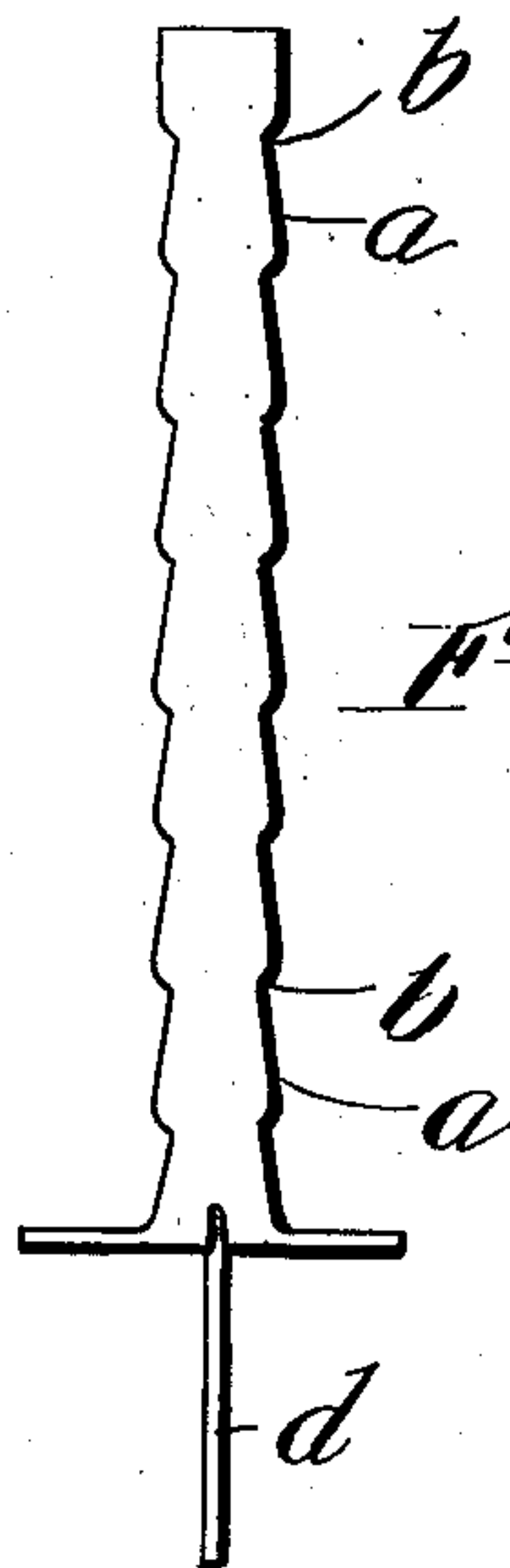
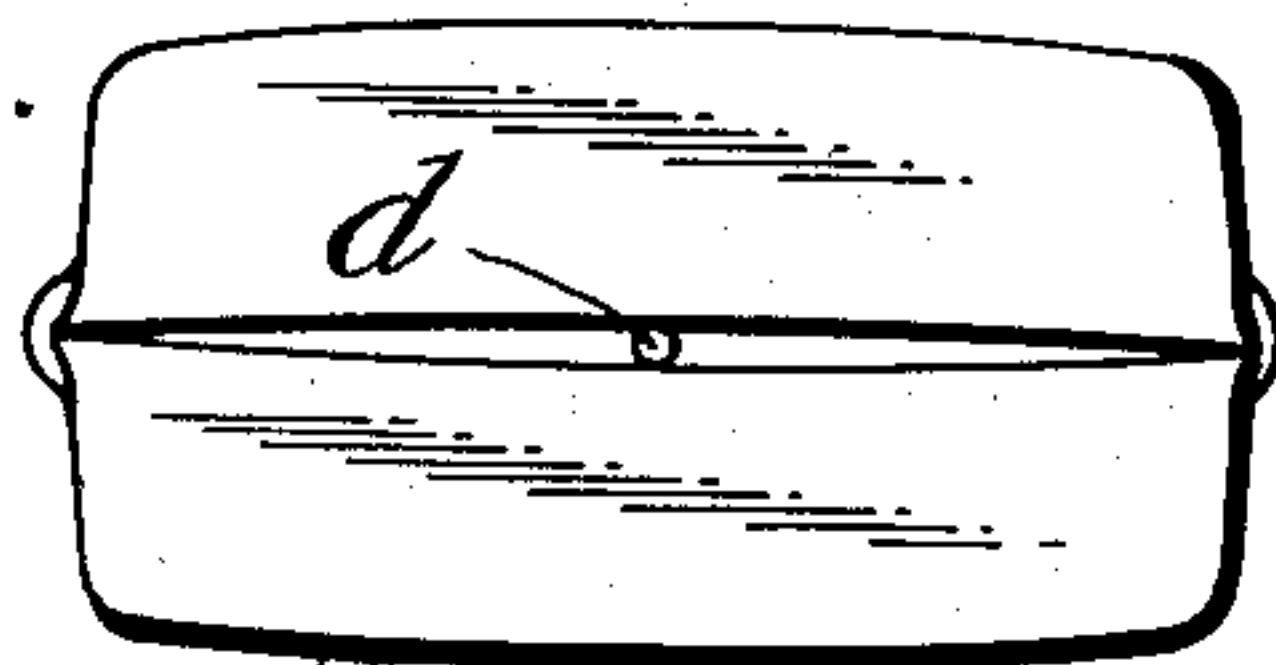


Fig. 4.

Fig. 5.



WITNESSES:

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CYRIL LOVELY, OF WEBSTER, MASSACHUSETTS, ASSIGNOR TO VICTOR D. PAPINEAU, OF WEBSTER, MASSACHUSETTS.

WALL-PLUG.

No. 889,700.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed May 13, 1907. Serial No. 373,333.

To all whom it may concern:

Be it known that I, CYRIL LOVELY, a citizen of the United States, residing at Webster, in the county of Worcester and State of Massachusetts, have invented a new and useful Wall-Plug, of which the following is a specification.

Various kinds of wall plugs have been proposed, some of which are provided with corrugations and others with lips for engaging the nail driven into the plug, but so far as I am aware, they have not been provided with lips leaving perforations in the wall plug open to the plaster or cement so that the latter may enter and help hold the plug in place.

One object of the present invention is to provide such a construction as this and another is to provide a construction in which a wire or the like may be removably held in the plug to locate it, this wire extending out from the plaster so that there may be no time lost in measuring for the plugs after they are in position. These wires being of smaller size than the nail to be used, when the nail is driven in, the tongues holding it will be forced back and permit the wire to be withdrawn.

Another object of the invention is to increase the strength of the entire structure and thus permit the plug to be made of thinner metal if desired, thereby saving in the expense of the device. This is done by providing a series of opposite, inwardly-extending lips or ribs at an angle to the surface of the plug, continuous from one side of the plug to the other, and connecting the opposite edges thereof so as to resist any force tending to push the sides of the plug outwardly.

Another object of the invention is to construct a wall plug in a simple and inexpensive manner so that it will be manufactured and sold cheaply without losing any of the advantages thereof.

Reference is to be had to the accompanying drawings which show a preferred form of the invention and in which,

Figure 1 is a sectional view of a portion of a wall showing the plug therein with the locking wire in position. Fig. 2 is a similar view showing the same plug when the nail is driven in and the wire withdrawn. Fig. 3 is a side elevation of the plug. Fig. 4 is an edge elevation, and Fig. 5 is a plan.

The plug is preferably formed of a single piece of sheet metal struck up and stamped by means of dies or the like in a well known manner.

The sides of the plug are provided with corrugations *a* which have troughs *b* extending substantially all the way across the plug and transversely thereof. The troughs are stamped out before the sheet metal is bent up to shape to form the complete plug so as to produce inwardly extending resilient lips *c*. These lips are bent in at an angle and are located opposite each other. In the plug as formed, they are substantially in contact so that the wire *d* may be forced into the plug and will project therefrom as indicated in Fig. 1 through the plaster *e* to show where the plug is located. It will be seen also that at the other side of each trough *b* is another lip *k*. These lips *k* are shorter than the lips *c* and extend at an angle more nearly perpendicular to the sides of the plug than the lips *c*. However, they are continuous from one side to the other and they constitute reinforcing ribs extending across the plug which strengthen the device materially.

When a nail *f* is driven into the plug it spreads the lips sufficiently to permit the wire *d* to be withdrawn and the parts then assume the position shown in Fig. 2.

It will be observed that the punching in of the lips *c* leaves perforations *g* which extend all the way across the plug and are open on the outside to permit plaster, cement, or the like to extend partly into the plug to help hold the same in position.

It will be seen that the tongues are of such length that they are located at an acute angle so that the driving in of the nails simply forces their ends outwardly without having any great tendency to force out the outer surfaces of the wall plug itself. This permits the lips to bear resiliently on the nail so as to hold it securely in position. By having single lips extending all the way across the nail plug, the device is greatly simplified, and the nail or wire can be held at any other point than the center, if it is desired. Moreover, these lips, extending as they do, entirely across the surface of the wall-plug and being located in the troughs of the corrugations, one set being longer than the other and inclined in the direction in which the nail is to be driven into the plug, and the other set being shorter and at a less acute angle to the

surface of the plug and both sets being continuous, greatly strengthen the structure. The device has been found in practice to be so greatly strengthened by these lips and the lips *k* that the plug can be made of comparatively thin stock thus saving greatly in the amount of metal used. Even when made of thin stock in this way, the plug has been found by actual tests to be very strong, and to efficiently hold the nail. This latter feature is due in part to the increased strength and in part to the fact that the sharp cut edges of the lips *c* are brought into contact with the nail at an angle.

While I have illustrated and described a particular form of the invention, I am aware that many modifications may be made therein by any persons skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to the particular form shown, but

What I do claim is:—

1. The combination with a wall plug having resilient sides, of a small headless wire extending from the outer face thereof and held in position by said resilient sides of the plug to indicate the position of the plug when in the wall.

2. A wall plug having transversely corrugated sides, and corrugations having two sets of inwardly projecting lips extending entirely across the surface of the wall-plug and located in the troughs of the corrugations, one set being longer than the other and inclined in the direction in which the nail is to be driven into the plug, and the other set being shorter and at a less acute angle to the surface of the plug, in combination with a small wire adapted to be removably held by said longer lips and to be released therefrom when a nail is driven between said lips.

3. A wall plug having transversely corrugated sides, the corrugations having two sets of inwardly projecting lips extending entirely across the surface of the wall plug and lo-

cated in the troughs of the corrugations; one set being longer than the other and inclined in the direction in which the nail is to be driven into the plug and the other set being shorter and at a less acute angle to the surface of the plug, whereby both sets of lips strengthen the plug.

4. A wall plug having two sets of inwardly projecting lips extending entirely across the surface of the wall-plug, one set being longer than the other and inclined in the direction in which the nail is to be driven into the plug, and the other set being shorter and at a less acute angle to the surface of the plug, whereby both sets of lips strengthen the plug.

5. A wall plug formed of resilient material having continuous inwardly-extending, oppositely-disposed lips on the inner surfaces thereof, each extending substantially across the same at an angle to the surfaces of the plug and connecting the opposite edges thereof, whereby said lips serve as ribs to strengthen the plug by tending to resist any force from within which would tend to push the walls of the plug outwardly.

6. A wall plug formed of resilient material having continuous inwardly-extending, oppositely-disposed lips on the inner surface thereof, each extending substantially across the same at an angle to the surfaces of the plug and connecting the opposite edges thereof, whereby said lips serve as ribs to strengthen the plug by tending to resist any force from within which would tend to push the walls of the plug outwardly, said lips extending in proximity to each other at the center of the plug and having sharp cut edges at an angle for engaging and resiliently holding a nail or the like.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

CYRIL LOVELY.

Witnesses:

CHAS. K. KNOWLTON,
EDWIN F. DAVIS.