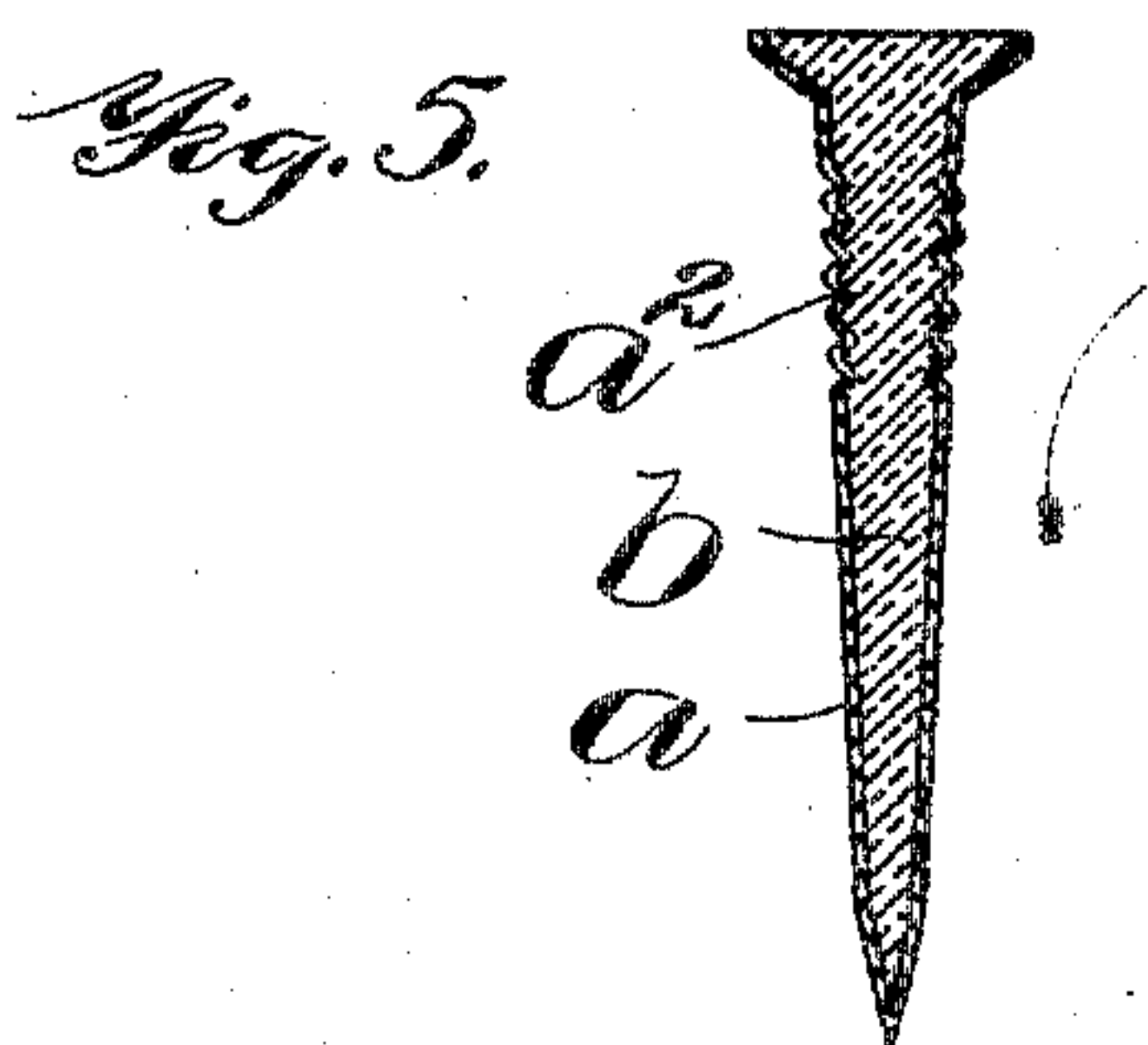
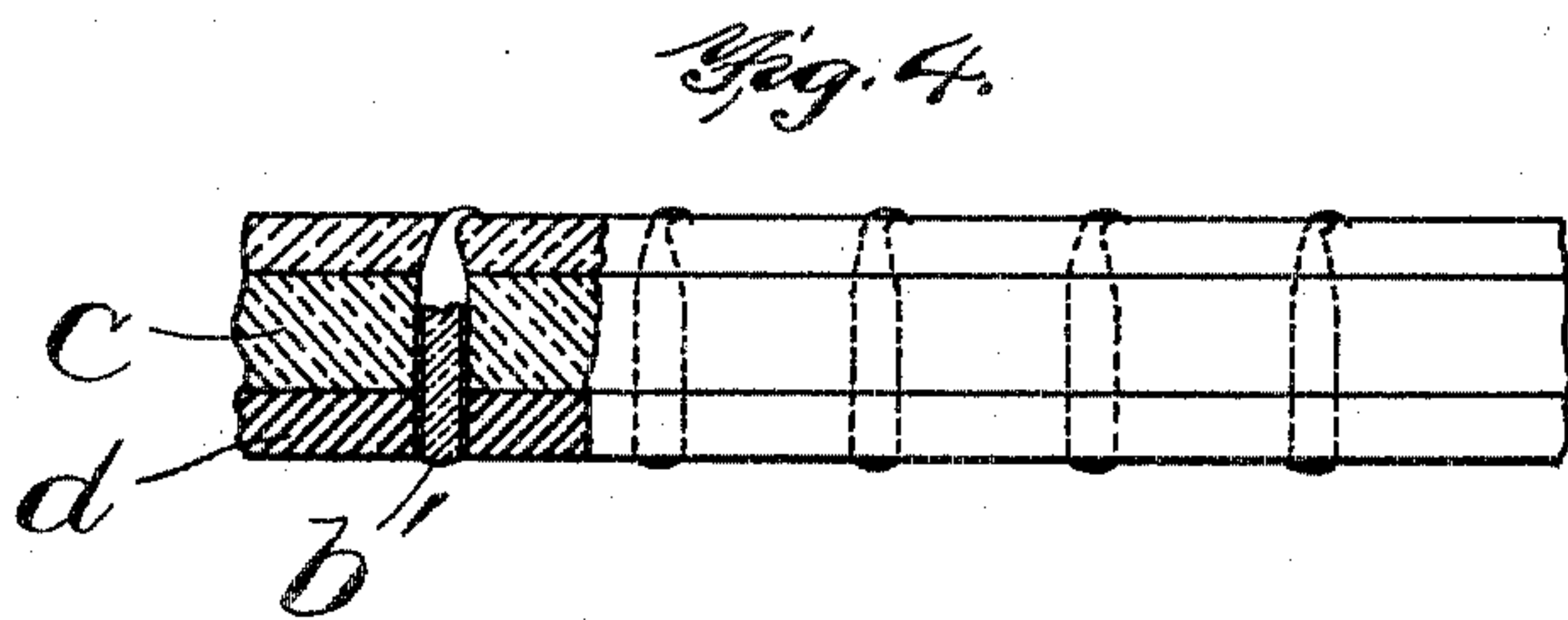
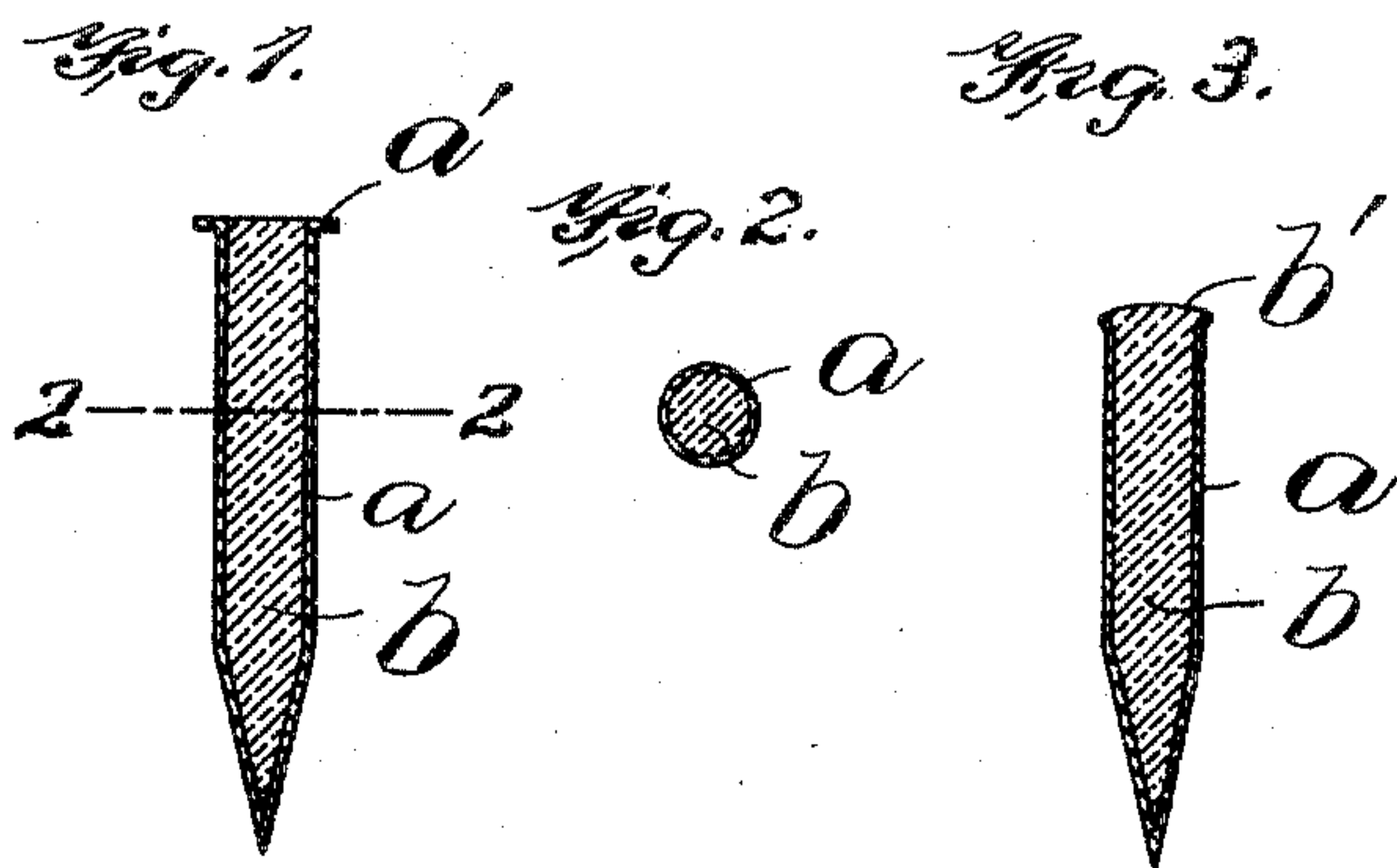


No. 780,063.

PATENTED JAN. 17, 1905.

P. W. PRATT.
CLINCHING NAIL OR TACK.
APPLICATION FILED MAR. 16, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

PHILIP W. PRATT, OF BOSTON, MASSACHUSETTS.

CLENCHING NAIL OR TACK.

SPECIFICATION forming part of Letters Patent No. 780,063, dated January 17, 1905.

Application filed March 16, 1904. Serial No. 198,412.

To all whom it may concern:

Be it known that I, PHILIP W. PRATT, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and
5 useful Improvements in Clenching Nails or Tacks, of which the following is a specification.

This invention relates to fastening devices of that type known as "clenching" nails or
10 tacks, such devices being most commonly employed for use in the manufacture of boots and shoes.

My present invention is also particularly adapted for use in connection with boots and
15 shoes, such as an aid for securing in place heels or soles which have heretofore mainly relied upon cement for attaching them.

The object of my invention is to provide a clenching nail or tack so constructed that the
20 outer end thereof will be upset or spread by the wear, so as to maintain a head or bur of greater diameter than the nail, such head bearing on the outer surface of a rubber sole which has been cemented to a leather sole and
25 aiding the cement in holding the rubber sole in place.

A further object of the invention is to provide a structure of nail or tack which as it wears away will continue to present a bur of
30 "antislip" metal, such as lead.

To these ends the invention consists in the nail or tack substantially as hereinafter described and claimed.

Of the accompanying drawings, forming a
35 part of this specification, Figure 1 is an enlarged view representing a nail in section constructed according to my invention. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents the same nail after it has
40 been partially worn down. Fig. 4 represents a nail embodying my invention and illustrating one of the uses to which said nail may be put, a portion of the shell being broken away to show the lead filling or core. Fig. 5 is a
45 view similar to Fig. 1, but showing a different form of nail in which the invention may be embodied.

Similar reference characters designate similar parts throughout the several views.

In carrying out my invention I preferably
50 employ thin sheet metal, such as brass, rolled to form a shell *a*, one end being contracted to form a point and the other end being left either cylindrical or slightly flared outward to form a head, as shown at *a'* in Fig. 1. The
55 core *b* may consist of a piece of lead wire which has been rolled up within the shell *a*. I do not limit myself specifically, however, to the use of lead as the filling or core, as similar soft metal may be employed. I prefer lead,
60 however, on account of its antislip qualities.

When the nail has been partially worn down, as shown in Fig. 3, the head *a'* of the shell, if any such head has been provided, has
65 been worn away and the ductile metal of the core is upset or spread over the shell, so as to form an enlarged head *b'* of the core itself which will not only aid in holding anything, such as a rubber sole, but also forms an enlarged antislip surface.
70

In Fig. 4 I show the nail as employed in holding a rubber sole *d* against a leather sole *c*. In employing this nail or tack for aiding
75 in securing a rubber sole to leather an awl or a similar tool will preferably be first employed to form a hole in the leather, so as to receive the nail. This is because I preferably employ
80 a shell of such thin metal that the nail would not be self-penetrating in leather. If the nail were to be driven simply into rubber or into some kinds of comparatively soft wood, the thin metal of the shell gives ample strength
85 for driving purposes without doubling the nail upon itself. Of course the chief utility of the shell *a* is to strengthen the soft-metal core, so as to enable it to be driven. I intend to employ metal so thin that when pressure is exerted thereon in the use of the article in which the nail is driven the said shell will be quickly
90 broken down or worn away, so as to permit of the lateral spreading or upsetting of the core to form the head *b'*, as described.

As shown in Fig. 5, the upper end of the shell may be flared somewhat in the form of a screw-head or of some types of nail-heads,
95 and an enlarged portion of the core *b* will fill the enlarged or flared head portion of the shell. As also shown in said Fig. 5, the nail

may be of a tapering form from end to end instead of having parallel sides, as shown in Fig. 1.

5 Whatever the form of nail in which the invention is embodied the shell may be corrugated for a portion of its length, as indicated at a^2 in Fig. 5.

I claim—

10 1. A clenching nail or tack comprising a shell of thin metal pointed at one end and having a core of relatively soft metal.

2. A clenching nail or tack comprising a sheet-metal shell pointed at one end and having a flange or head at the other end, and a lead core or filling within said shell.

In testimony whereof I have affixed my signature in presence of two witnesses.

PHILIP W. PRATT.

Witnesses:

A. W. HARRISON,

R. M. PIERSON.