(No Model.)

F. F. RAYMOND, 2d.

MANUFACTURE OF LOADED HEEL BLANKS.

No. 386,656. Patented July 24, 1888.

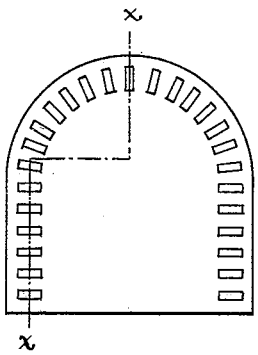

Fig. 2.

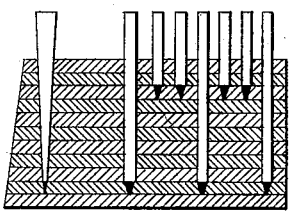

Fig. 1.

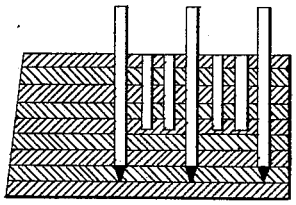

Fig. 3.

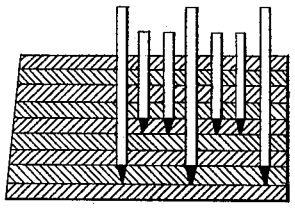

Fig. 4.

WITNESSES.

J. M. Dolan.

E. P. Small.

INVENTOR.

F. F. Raymond

UNITED STATES PATENT OFFICE.

FREEBORN F. RAYMOND, 2D, OF NEWTON, MASSACHUSETTS.

MANUFACTURE OF LOADED HEEL-BLANKS.

SPECIFICATION forming part of Letters Patent No. 386,656, dated July 24, 1888.

Application filed January 19, 1888. Serial No. 261,232. (No model.)

To all whom it may concern:

Be it known that I, FREEBORN F. RAYMOND, 2d, of Newton, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in the Method of Making Loaded Heel-Blanks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

Heretofore loaded heel-blanks for flush nailing have been provided with a gang or group of nails placed closely together, and each of which is an attaching-nail; and I have ascertained that the use of so many nails for the purpose of attachment of the heel-blank to the boot or shoe is objectionable, in that they do not serve to hold the heel-blank to the soles of the boot or shoe any more strongly, if as well, as though fewer attaching-nails were employed; also, that the use of so many attaching-nails adds considerably to the cost of manufacture of the boot or shoe. It is still, however, desirable that the lower portion of the heel-blank should have a larger metal wearing-surface than would be provided with a sufficient number of attaching-nails only, and to overcome the objection above named, and to provide a loaded heel-blank that shall have a proper metal wearing-surface, I make a loaded heel-blank as hereinafter specified.

Any form of heel-blank may be used. I prefer, however, to employ a compressed or molded heel-blank—that is, a heel that has been submitted to compression in dies, whereby a concave heel-seat is formed, its side edges consolidated, and a flat tread provided. The heel-blank, either while under compression or otherwise, has formed in it a number of holes, which, preferably, vary in length, the deeper holes being arranged for the reception of the longer attaching-nails and the shallower holes for the slugs or nails which do not serve as attaching-nails. I prefer to form these holes of variable length in the heel-blank simultaneously by a gang or group of awls varying in length, and into the holes thus formed I then insert the attaching-nails and slugs, the attaching-nails of course being inserted in the longer holes and the slugs in the shallower holes, and I also prefer that the breast-nails, or the first nails in order from the breast, be attaching-nails, and the nails following in their order about the heel-blank may be alternated with slugs, as desired.

For ordinary uses I prefer to employ first an attaching-nail, then two slugs, then the next attaching-nail, and so on, and the attaching-nails are driven into the heel-blank, but not entirely through the same, their head ends projecting from the tread-surface of the heel-blank. The slugs, however, I prefer to drive into the heel-blank so that their heads shall be flush with the surface of the tread, and I prefer to drive or insert the attaching-nails and slugs at the same time—that is, as a gang or group—so that the attaching-nails shall be inserted with their heads left projecting, while the slugs shall be driven home and need no further driving with the subsequent attaching of the loaded heel-blank to the soles of the boot or shoe.

Of course it is not necessary that the slugs be driven completely home, but they should be driven far enough into the heel-blank to hold, and, as they are very much shorter than the attaching-nails—probably, as a rule not longer than the portion of the attaching-nails which are left projecting from the loaded blank—it is obvious that they must either be driven home or to a position which shall bring their heads considerably closer the tread of the heel-blank than the heads of the attaching-nails.

In the drawings, Figure 1 represents a section of a loaded heel-blank made by my method upon the line *x x* of Fig. 2. Fig. 2 is a plan view of such a loaded heel-blank. Fig. 3 is a section upon the line *x x* of Fig. 2. Fig. 4 is a view on the same line, showing the slugs partially driven.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The improved method of making detached loaded heel-blanks for attachment by flush nailing to the soles of a boot or shoe, consisting in pricking holes therein at a uniform distance from the edge of the top lift of the heel-blank and inserting in some of said holes nails of one length to serve as attaching-nails and the heads of which are left projecting from the tread-sur-

face of the heel-blank, and the points of which do not extend through the heel-blank, and in other of said holes shorter nails or slugs adapted for surface wearing and not for attaching, and interposed between the attaching-nails, as and for the purposes specified.

2. The method of making detached loaded heel-blanks for attachment by flush nailing to the soles of a boot or a shoe, consisting in forming holes in the heel-blank varying in depth and inserting in said holes nails varying in length, the longer of which are used as attaching-nails, are set in the longer holes, and have their heads projecting from the tread-surface of the heel-blank and their points embedded in the substance of the heel, and the shorter of which are set in the shallower holes and are interposed between the attaching-nails and are driven to bring their heads flush with the tread-surface of the heel-blank before it is attached, as and for the purposes described.

FREEBORN F. RAYMOND, 2D.

Witnesses:
J. M. DOLAN,
P. COWL.