(No Model.)

J. BERBECKER.

METHOD OF MAKING FURNITURE NAILS.

No. 457,597. Patented Aug. 11, 1891.

Fig. 1.

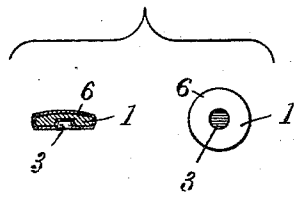


Fig. 2.

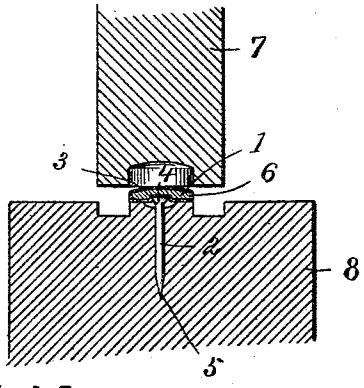


Fig. 4.

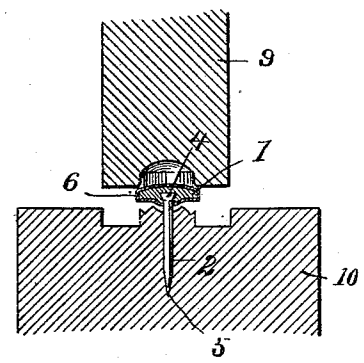


Fig. 3.

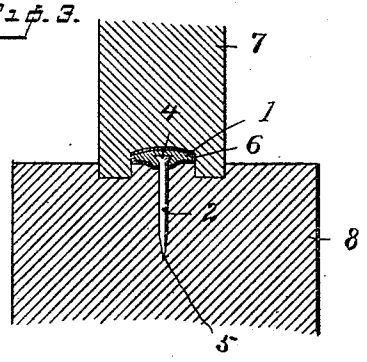
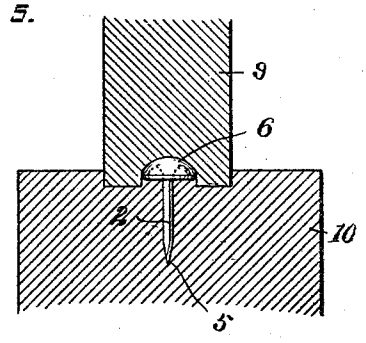


Fig. 5.



WITNESSES

C. M. Newman,

Ashley I. Munson

INVENTOR

Juline Berbecker.

By A. M. Wooster

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JULIUS BERBECKER, OF NEW YORK, N. Y.

METHOD OF MAKING FURNITURE-NAILS.

SPECIFICATION forming part of Letters Patent No. 457,597, dated August 11, 1891.

Application filed September 6, 1890. Serial No. 364,117. (No model.)

To all whom it may concern:

Be it known that I, JULIUS BERBECKER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Making Furniture-Nails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the manufacture of furniture-nails, and has for its object to produce nails having plated heads which shall be for all practical purposes as durable as solid-head nails. It is of course well understood that nails of this class are required to be either of brass or to have the finish of brass or a finer metal. Originally nails of this class were made entirely of brass. Later both shanks and heads were made of iron and steel, steel in fact making much better heads than brass, but requiring to be plated, as the trade required better-finished nails. The objections to plated nails as heretofore placed on the market are, first, that no matter how heavy the deposit placed upon the heads the plating is necessarily soft, as is always the case where one metal is coated with another by electro-galvanic deposition, and, secondly, that it is not practicable to produce a hard, polished surface upon the heads, as the cost of finishing is so great as to make it impossible to compete in the market with imported nails. For these reasons furniture-nails with plated heads have not been a commercial success. It may be added, furthermore, that as these nails have heretofore been produced it has been impossible to plate the heads without plating the shanks also. This adds considerably to the cost of production when made in quantities, and, furthermore, renders the nails less desirable than when the shanks are unplated. My present invention enables me to produce furniture-nails with iron or steel shanks and iron or steel heads, the heads being plated and the shanks left unplated, and the plating upon the heads being finished hard and smooth and perfectly united with the metal of the heads, thereby causing the nails in use to retain the appearance of solid-head nails.

In the accompanying drawings, forming part of this specification, Figure 1 is a section and an inverted plan view of a blank for a nail-head after plating, the thickness of the plating being greatly exaggerated for the sake of clearness; Fig. 2, a sectional view illustrating suitable dies for attaching the heads to the shanks, the dies being in the open position; Fig. 3, a similar view, the dies being in the closed position; Fig. 4, a sectional view illustrating suitable dies for finishing the heads, the dies being in the open position; and Fig. 5, a similar view showing the heads in the closed position, the shanks being in elevation in the four views and the heads in section in Figs. 2, 3, and 4, and the completed head in elevation in Fig. 5.

1 denotes a head-blank, and 2 a shank. The head-blanks are formed by a suitable punch, (not shown in the drawing, as it forms no portion of my present invention,) a socket 3 being punched at the center of each blank in one side. The shanks are each provided with an enlargement 4 at one end to retain the heads in position after attachment, and a point 5 at the other.

The manner in which the shanks are made is wholly immaterial, so far as my present invention is concerned. My novel method consists of five steps, as follows: First, the forming of the head in any suitable manner; second, the forming of the shank in any suitable manner; third, the plating of the head; fourth, the attachment of the head to the shank, and, fifth, the finishing of the head.

The essential feature of novelty is that I plate the heads before they are attached to the shanks and then simultaneously form the heads, unite them to the shanks, unite the plating with the metal of the heads, and also finish and polish the heads by the action of the dies. The heads are plated, as indicated in Fig. 1, the plating being denoted by 6. A large number of the heads are plunged at the same time into a plating-bath, where they are allowed to remain until the required amount of metal has been deposited upon them. The other operations are performed by any suitable dies. In Figs. 2 and 3 I have shown male and female dies (denoted respectively by 7 and 8) for attaching the heads to the shanks, and in Figs. 4 and 5 I have shown suitable male

and female dies for finishing the heads. It should be understood, however, that the special form of dies used has nothing to do with my present invention, there being various machines now upon the market capable of making this class of nails. If preferred, the operation of uniting the heads to the shanks and finishing the heads may be performed simultaneously upon first and second nails by a double-acting punch, the second nail being finished at the same instant the head of the first nail is being united to the shank.

This method is especially valuable in the manufacture of fancy nails, as it renders the raised surfaces thoroughly durable and leaves them highly polished, thereby dispensing with the heretofore-essential operations of polishing and finishing, which are so expensive in practice as to keep this class of nails almost entirely out of the market.

Having thus described my invention, I claim—

The method of making plated-headed furniture-nails, which consists in forming and pointing the shanks in any suitable manner, forming head-blanks having central sockets in any suitable manner, then plating the head-blanks independently of the shanks, and then uniting the heads to the shanks, condensing the plating and uniting it with the head, and simultaneously polishing and finishing the head by the action of suitable dies.

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

JULIUS BERBECKER.

Witnesses:
A. M. WOOSTER,
ARLEY I. MUNSON.