No. 607,597. Patented July 19, 1898.

F. C. BLENKNER.

DIE FOR PRODUCING JEWEL RECEIVING PINS.

(Application filed Nov. 26, 1897.)

(No Model.)

Fig. 1

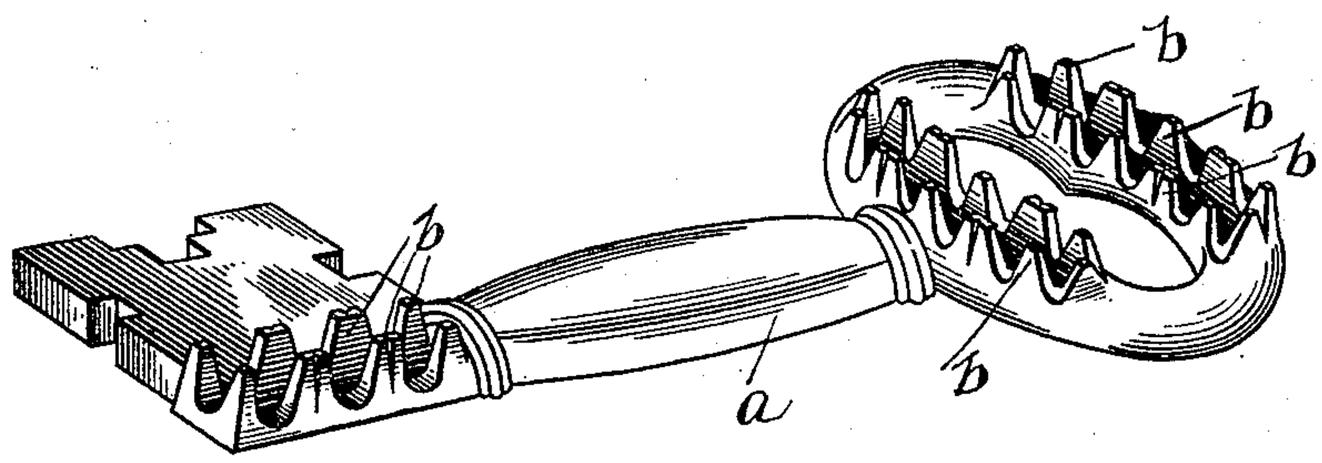


Fig. 2

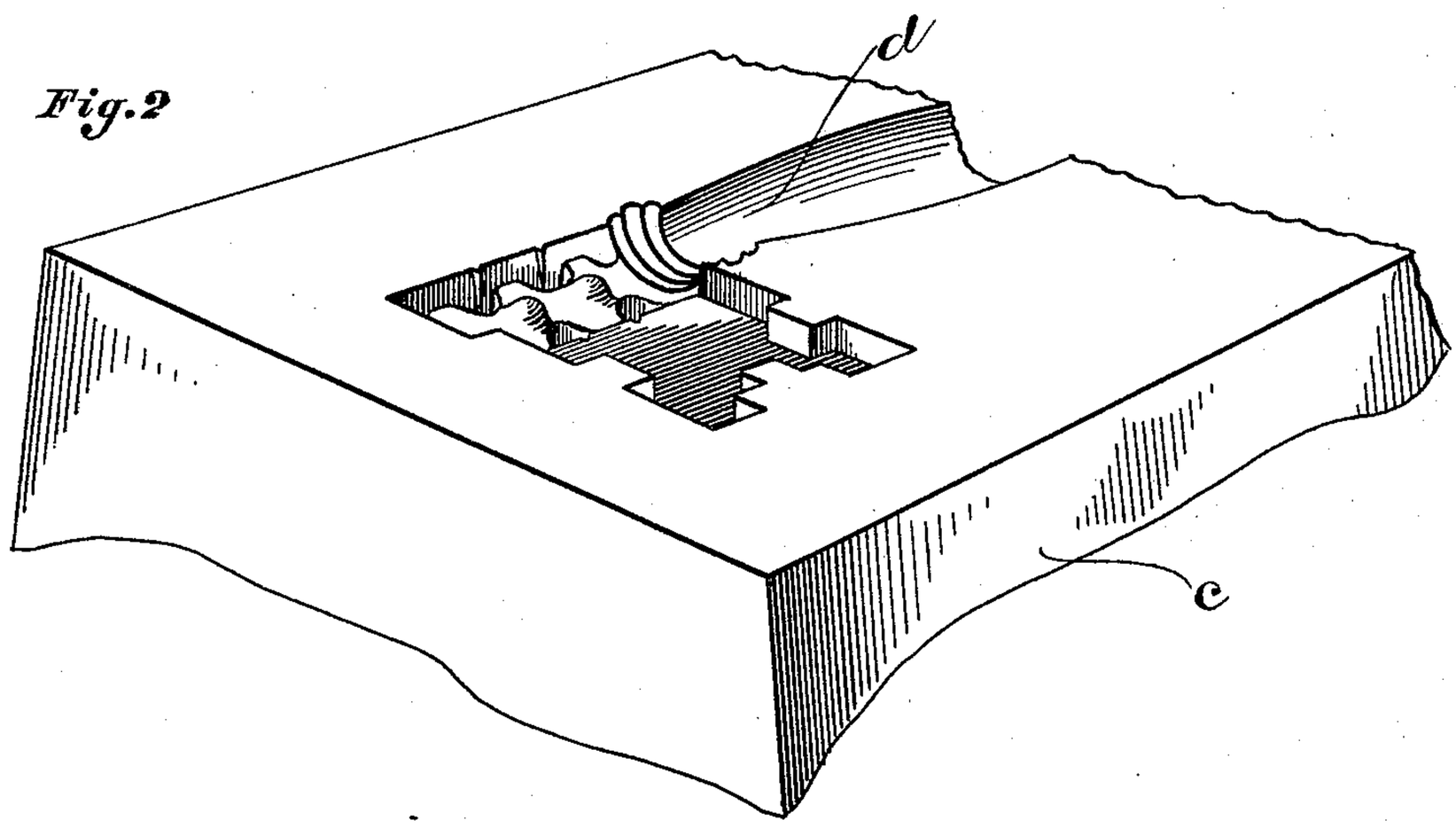
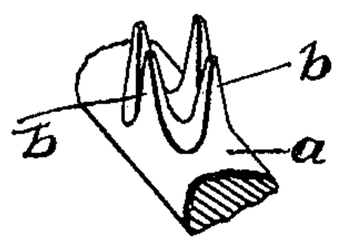


Fig. 3



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FRED C. BLENKNER, OF COLUMBUS, OHIO.

DIE FOR PRODUCING JEWEL-RECEIVING PINS.

SPECIFICATION forming part of Letters Patent No. 607,597, dated July 19, 1898.

Application filed November 26, 1897. Serial No. 659,812. (No model.)

To all whom it may concern:

Be it known that I, FRED C. BLENKNER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Dies for Producing Jewel-Receiving Pins, of which the following is a specification.

My invention relates to the improvement of dies for producing jewel-receiving pins or ornaments; and the objects of my invention are to provide a die-producing hub of improved construction, whereby an effective die may be formed, by means of which I am enabled by the same operation to produce not only the body of an ornamental pin, but to produce said body with the jewel-holding cramps projecting therefrom in position for use; to so construct my improved die-hub and die as to admit of said die being employed to reproduce additional hubs; to obviate the necessity of employing hand-labor in the production of the jewel-cramps, and to produce other improvements, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is an enlarged view in perspective of a hub which I employ in the manner hereinafter described for the purpose of producing a die, said figure also practically illustrating the jewel-receiving pin to be produced from said die. Fig. 2 is a view in perspective of a portion of the die-block, and Fig. 3 is a detail view in perspective illustrating slightly-different forms of jewel-cramps which may be produced by my improved dies.

Similar letters refer to similar parts throughout the several views.

Although the drawings which form a part of this application illustrate an ornamental pin which is in the form of a jewel-receiving key, it is obvious that any other form of ornamental device may be produced by the means to be described.

Heretofore it has been common in forming the die-producing hub for the production of ornaments similar to those herein illustrated to produce the device—such, for instance, as that shown in Fig. 1—in relief on the end or upper side of a block, but in carrying out my invention I first produce said hub as shown in said Fig. 1 and indicated at *a*, the same being formed but of slightly greater thickness than the ornamental device which is to be the product thereof. This hand-made hub, which is indicated at *a*, is produced of steel, after which it is hardened and tempered to a high degree. It is obvious that the shallow form of the hub as compared with that ordinarily employed is such as to admit of the same being tempered to a much higher degree than when constructed in the thick or deep form. The shallow hub being thus produced with the jewel-cramps *b* projecting therefrom, as shown, said cramps being either of the usual single or split forms, an impression of the same is produced in an annealed-steel die-block *c* by placing said hub on the face of said block and imparting to the former several blows of the hammer. This being accomplished and the impression being partly formed in the block *c*, the hub is removed therefrom and the block *c* again annealed, after which the hub is replaced in the partly-formed depression and the operation of striking said hub is resumed. This operation of alternately striking or pressing the hub into the block and annealing the latter is continued until the depression, which is indicated at *d*, is of sufficient depth in the die-block.

The die being now faced or its depressed surface made smooth it is hardened in the usual manner and is then ready for the reproduction of the design which was originally imparted to the hub. This operation of producing the ornamental pins from the die is substantially that ordinarily employed, and consists in striking a solid piece of gold, silver, copper, or other desirable metal into the die-depression.

It has been customary in producing ornamental pins or designs of the character shown and described without producing at the same operation the separated jewel-cramps, these being afterward worked out by hand, but by the operation above described it is obvious that large numbers of the devices may be produced in a comparatively short time substantially in condition for receiving the settings. It will also be seen that owing to the similarity in form and thickness of the hub and the die product said die may be employed to produce additional hubs by striking there-

in a desired-size annealed piece of steel, which when suitably formed may be hardened and employed as a hub for the production of other dies. Attention is called to the fact that the operation above described consists in striking the pin or ornament from a solid piece of metal as distinguished from sheet metal.

By the method herein described it will be observed that improved hubs and dies are produced for striking or pressing up open or crown settings from solid metal which will result in a great saving of labor and time in the production of jewel-receiving ornaments.

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

A die-producing hub for the production of jewel receiving and holding devices consisting of a metallic body shaped to conform to the design of ornament to be produced and having substantially the same thickness thereof, said body having formed therewith jewel-holding cramp projections, substantially as and for the purpose specified.

FRED C. BLENKNER.

In presence of—

EDWARD M. TAYLOR,

C. C. SHEPHERD.