

(No Model.)

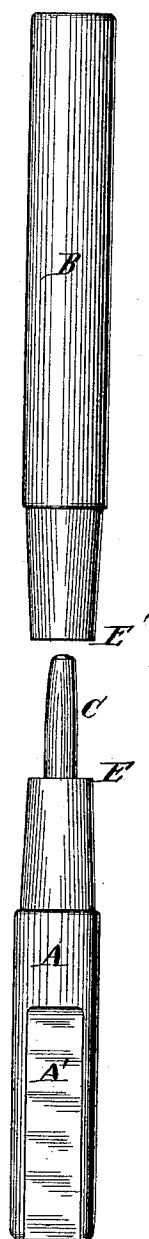
F. GOEGGEL.

BUSHING PUNCH FOR WATCH MAKERS.

No. 341,652.

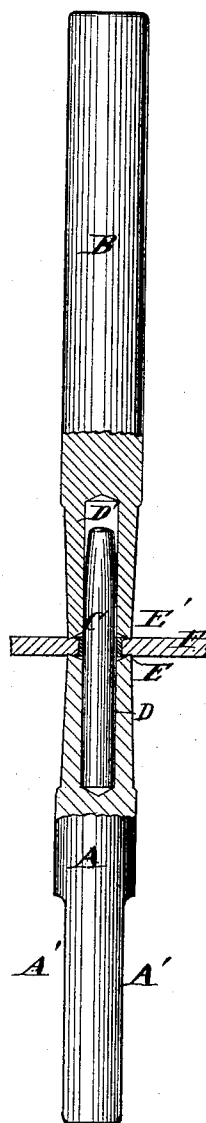
Patented May 11, 1886.

Fig. 1.



Attest:
Charles Pickles
F. A. Nopman

Fig. 2.



Inventor:
Francis Goeggel.
By Knight Bro.
attys.

UNITED STATES PATENT OFFICE.

FRANCIS GOEGGEL, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
JOHN T. SLUGGETT, OF SAME PLACE.

BUSHING-PUNCH FOR WATCH-MAKERS.

SPECIFICATION forming part of Letters Patent No. 341,652, dated May 11, 1886.

Application filed December 26, 1885. Serial No. 186,763. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS GOEGGEL, of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Bushing-Punches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side view of the two parts forming the instrument. Fig. 2 is a view partly in elevation and partly in axial section, showing the instrument in use.

My invention relates to bushing punches for truing up and tightening the bearings in watch and clock works, &c.; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar letters signify like parts in both the figures, A represents the lower punch, and A' its flat sides, adapted to the grip of the vise. When thus secured, it will be seen to constitute the anvil upon which the swaging is done.

C is the pintle around which the bearing is trued and is bushed, and D the socket or seat in the lower punch in which the foot of the pintle is held.

B represents the upper punch, and D' the upper socket that incases the point of the pintle.

E and E' are the bevel bushing edges, respectively, of the upper and lower punch.

F represents a section of a plate or wheel under treatment for bushing with my instrument.

The pintle is preferably, as shown, made separate to the punch in the socket, to which it is seated, as it has to be turned exactly true as a guide-rule to the bearing which has to be bushed and trued to it; also, should either the said pintle or the bevel edges of the punch need redressing a means is thus provided of disconnecting them so that it can readily be done.

I do not desire to limit myself to a pintle formed separately from the rest of device, for the reason that the same result would be accomplished if it were formed integrally with either one of the members A or B.

F is a section of a plate or wheel under the operation of bushing.

The operation of the instrument is as follows: The lower or fixed punch is secured in the grip of a bench-vise, and the wheel or plate to be operated on being placed in position with the pintle engaged in the bearing, the upper punch is then applied, its socket incasing the point of the pintle. The operator, with a hammer or mallet, then taps the upper punch until the corresponding bevel edges of the twin punches have bushed the metal around the pintle. It will be seen that from the presentation of the bevel edges each tap of the hammer on the punch must press the bushing farther home around the pintle until the bearing has been sufficiently bushed; also as the pintle is perfectly true the bearing of necessity attains the same perfection.

I do not confine myself to any sized punch or pintle, for it is evident that they can be made of any requisite size to suit the diameter of the bearing to be bushed, and I design so to make them.

I preferably use high-tempered steel in the manufacture of my punches; but do not confine myself to such use, as they may be made of other metal, but not as effectual in their working or lasting in their wear.

I claim as my invention—

1. In a bushing-punch, the combination of the member A, the pintle C, corresponding in cross-section to the size and shape of the bearing desired, projecting from said member A, and resting on the bottom of the socket therein, and the member B, having the annular swaging-face, substantially as set forth.

2. In a bushing-punch, the combination, with two members or punches, each having a socket and a beveled bushing edge, of a pintle corresponding in cross-section to the size and shape of the bearing desired, received at its ends and centered within said sockets, whereby it forms a guide for the upper punch, and its cylindrical surface acts as a swaging-surface for the interior of the bushing.

FRANCIS GOEGGEL.

In presence of—

BENJN. A. KNIGHT,
SAML. KNIGHT.