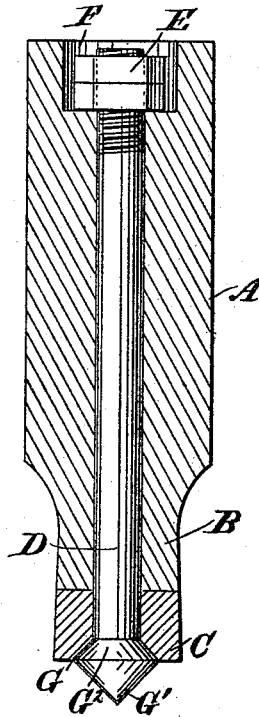


(No Model.)

F. N. SIMMONDS.
PUNCH.

No. 458,076.

Patented Aug. 18, 1891.



WITNESSES:

Chas. Nida
C. Sedgwick

INVENTOR

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UNITED STATES PATENT OFFICE.

FRANCIS N. SIMMONDS, OF SAN FRANCISCO, CALIFORNIA.

PUNCH.

SPECIFICATION forming part of Letters Patent No. 458,076, dated August 18, 1891.

Application filed May 6, 1891. Serial No. 391,772. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS N. SIMMONDS, of San Francisco, in the county of San Francisco and State of California, have invented
5 a new and Improved Punch, of which the following is a full, clear, and exact description.

The invention relates to punches used for punching iron, steel, or other material; and the object of the invention is to provide a new
10 and improved punch which is simple and durable in construction and permits of conveniently renewing the face whenever the latter is worn out or injured.

The invention consists of a punch provided
15 with a removable face.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described, and then pointed out in the claims.

20 Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure is a sectional side elevation of the improvement.

The improved punch is provided with the
25 body part A, formed with the reduced shank B, on the end of which is held the removable face C, having an easy-going edge and held in place on the shank and body part by means of a bolt D, which extends through an opening
30 in the middle of the said shank and body part. The threaded end of the bolt D is engaged by one or more nuts E, held in a recess F in the outer end of the body part A, so that neither the said bolt nor nuts E project
35 beyond the end of the body part. The head G of the bolt D is formed with the inverted cone G' extending from the face C, so that the pointed end of the said cone first enters the material to be punched before the cutting-
40 edge of the face comes in contact with the

material. The cone G' is formed on the end of a truncated cone G², extending from the bolt proper and fitted into a corresponding V-shaped recess or countersink in the face C. Instead of using a bolt for fastening the face
45 C in place on the punch-body, a screw or other means may be employed.

It will be seen that the punch can be used like any ordinary punch for perforating metal or other material. The face of the said punch,
50 however, can be conveniently removed by unscrewing the nuts E and taking out the bolt D to replace the said face by a new one in case it is worn out or otherwise injured.

Having thus fully described my invention, I
55 claim as new and desire to secure by Letters Patent—

1. A punch provided with a removable face, substantially as shown and described.

2. In a punch, the combination, with the
60 body part, of a face held removably on the said body part, substantially as shown and described.

3. In a punch, the combination, with a body part having a shank, of a face fitted on the said
65 shank, and means, substantially as described, for fastening the said face to the said body part, substantially as shown and described.

4. In a punch, the combination, with a body part provided with a shank, of a face fitted
70 upon the said shank, and a bolt for fastening the said face to the said body part, the said bolt being provided with a pointed head extending centrally from the said face, substantially as shown and described.

FRANCIS N. SIMMONDS.

Witnesses:

C. C. BOWEN,
LEE D. CRAIG.