

P. S. GABRIO.
Punches.

No. 149,583.

Patented April 14, 1874.

Fig 1.

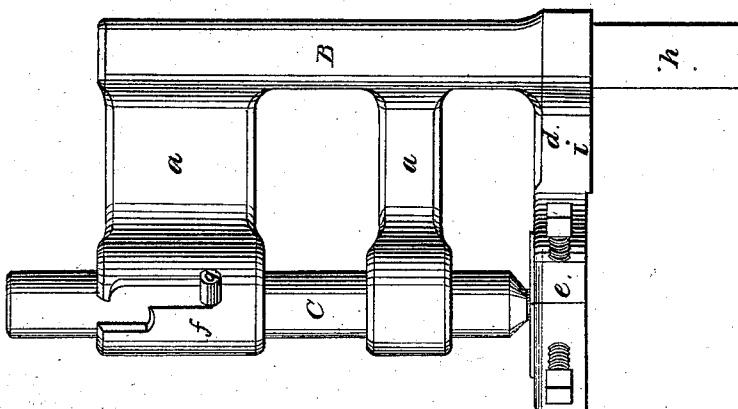
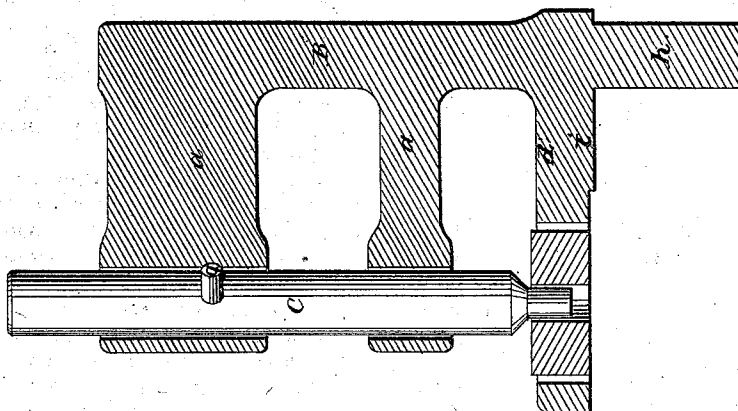


Fig 2



Witnesses
John H. Dammore
F. C. Heasley

Inventor.
Peter S. Gabrio

UNITED STATES PATENT OFFICE.

PETER S. GABRIO, OF STERLING, ILL., ASSIGNOR OF TWO-THIRDS HIS RIGHT
TO SAMUEL C. HARVEY AND LORENZO D. COGSWELL, OF SAME PLACE.

IMPROVEMENT IN PUNCHES.

Specification forming part of Letters Patent No. **149,583**, dated April 14, 1874; application filed
September 13, 1873.

To all whom it may concern:

Be it known that I, PETER S. GABRIO, of Sterling, in the county of Whitesides and State of Illinois, have invented certain Improvements in Machines for Punching Holes in Iron, of which the following is a specification:

My invention relates to the combination of a punch and die, in portable shape, for blacksmiths' use in punching holes in iron.

Figure 1 is a side elevation of a machine embodying my invention.

B is a perpendicular post, having the two guide-arms *a* and *a'*, the shank end *h*, and the horizontal arm *d*. The arm *d* is provided at *e* with a square hole to receive the die, and the die is adjusted in such hole by means of four set-screws, bearing on the die through the four sides of such bed. The posts B, guide-arms *a* and *a'*, and the arm *d* are cast together in one piece, and are made of malleable iron. C is a solid round punch, turned down at its lower end to the size of the hole required to be punched, and fitting smoothly in guides *a* and *a'*. C is provided at the upper guide *a'* with the stud *g*, which plays in a vertical slot, *f*, in such upper guide-arm. In the slot *f* there is a recess, into which, by partially revolving the punch *c*, the stud *g* is placed, thus suspending the punch for the purpose of adjusting the iron to be punched, and loosening the iron therefrom after punching. The arm *d* has a flange on its lower surface at *i*, for the purpose of holding the die-bed clear of the anvil, and permitting the die to rest on the anvil.

The mode of operation is as follows: The shank *h* is inserted in the square hole of the ordinary anvil; the die of the desired size placed in the bed of the arm *d*. The punch of corresponding size is passed down through the guides *a'* and *a*, and suspended in the slotted recess *f*. The die is then adjusted to the punch by means of the set-screws. The iron to be punched is laid over the die and beneath the punch. By turning the stud *g* into the vertical slot the punch is let down to the iron, and by blows from a hammer on the top of the punch, the latter is forced through the iron into the die. The punch, with the iron clinging to it, is then raised and hung in the slotted recess, and by taps of a hammer the iron is knocked off from the point of the punch. The further advantage of the slotted rest *f* is in the convenience it affords of adjusting the work to the punch, while the latter hangs immediately over the work.

The advantage of making the post B and its three arms, *a*, *a'*, and *d*, in one piece, and casting them of malleable iron, is its great cheapness, while insuring strength and durability.

I claim as my invention—

The combination, substantially as described, of the post or standard B, having the projecting arms *a* *a'*, the latter provided with the slot *f*, and the punch C, having the lug *g*, as and for the purpose specified.

PETER S. GABRIO.

Witnesses:

JOHN H. DUNMON,
F. O. HEADLEY.