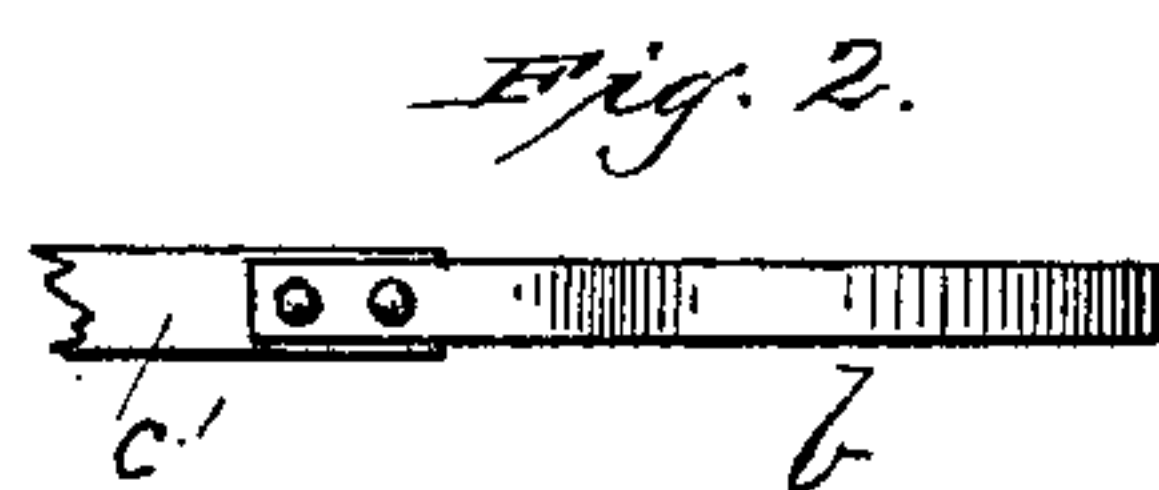
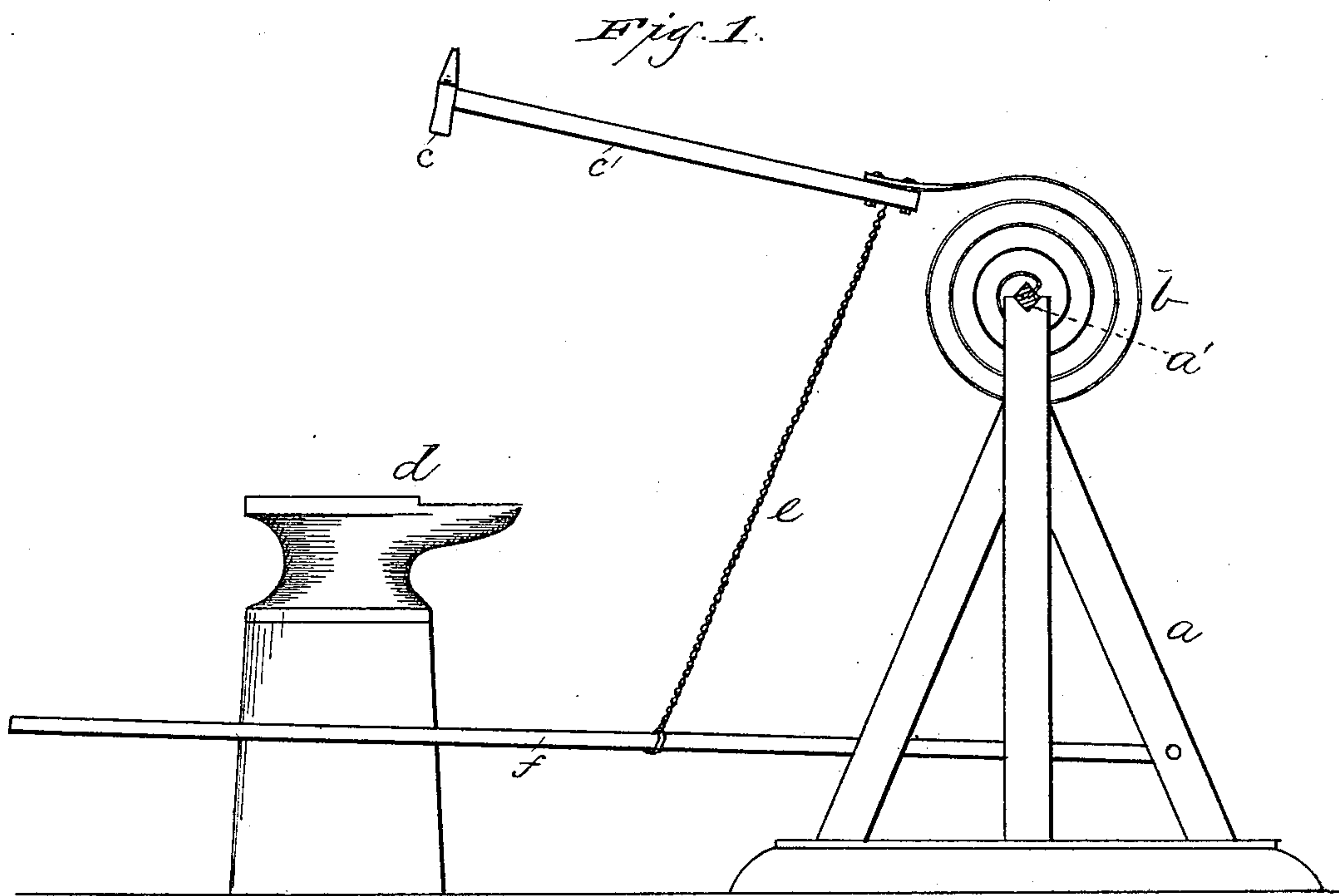


(No Model.)

A. ANDERSON.
BLACKSMITH'S HAMMER.

No. 273,793.

Patented Mar. 13, 1883.



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UNITED STATES PATENT OFFICE.

ANDREW ANDERSON, OF ELIZABETH, NEW JERSEY.

BLACKSMITH'S HAMMER.

SPECIFICATION forming part of Letters Patent No. 273,793, dated March 13, 1883.

Application filed October 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW ANDERSON, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Blacksmiths' Hammers and Anvils; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in trip-hammers where it is desirable for the operator to have the use of both his hands; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter fully described, and specifically pointed out in the claim.

In the drawings, Figure 1 is a side view; and Fig. 2 is a detached plan view, showing the top of the spring.

a is a stand provided with top cross-bar, *a'*, and furnishing a suitable support for the spring and hammer, hereinafter described.

b is a helical spring, the several coils of which are arranged in the same plane. The end of the smallest coil or the inner end of this spring is made fast to the top bar *a'*, as shown, while its outer end is made fast to the end of the hammer *c*.

d is an anvil arranged in position to receive the blows of the hammer *c*.

e is a chain having one end connected to the handle *c'* near the joint of the latter with the coil-spring *b*, and its other end extended down and made fast to a lever, *f*, which has one end pivoted in the stand *a* and its opposite end extended in rear of the anvil.

My invention is particularly useful to blacksmiths, and is intended to save the expense of a "helper" to swing the sledge.

In operation, the smith stands in position behind or to one side of the anvil, with one foot on the lever *f*, and holds his work in the tongs with one and his hand-hammer with the other hand, and alternately strikes with the hand-hammer and depresses the lever *f* with

his foot, thus striking with the sledge. The sledge, having its end secured on the end of the spring and not being pivoted on a fixed bearing, is thrown in a motion almost exactly like that given by hand.

While I regard my invention as peculiarly useful to blacksmiths, I do not desire to confine myself to its use by them, as it will be understood it would be of great advantage to locksmiths and jewelers, where it is desirable for them to grasp the work with both hands. In such cases frequently the work is held in the hands and not put on an anvil or similar bed to be hammered, the hammering often consisting of light taps with a small hammer. The inner end of the helical spring in such cases could be made fast to a support mounted on the work table or bench.

Where so desired, the chain or cord *e* might be secured at different points along the handle *c'*, so as to give different swings to the hammer; but for ordinary use I find it well to secure the chain to the hammer close to its joint with the spring *b*.

I am aware that it is not new in operating trip-hammers or olivers to employ a helical spring which has its outer or eccentric end made fast to a rigid support and its inner or central end secured to a shaft rotating in fixed bearings, to which shaft the helve of the hammer is made fast; and I do not claim such construction as my invention.

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

In a trip-hammer or oliver, the combination of a support, a helical spring having its inner or central end made fast to the support and its outer or eccentric end detached and swinging freely, a helve or handle adapted to carry a hammer on one end, and having its other end made fast to the eccentric or swinging end of the helical spring, and means for operating the hammer, substantially as set forth.

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

ANDREW ANDERSON.

Witnesses:

AUGUST LEPPERT,
HARMAN STRITTMOTTER.