

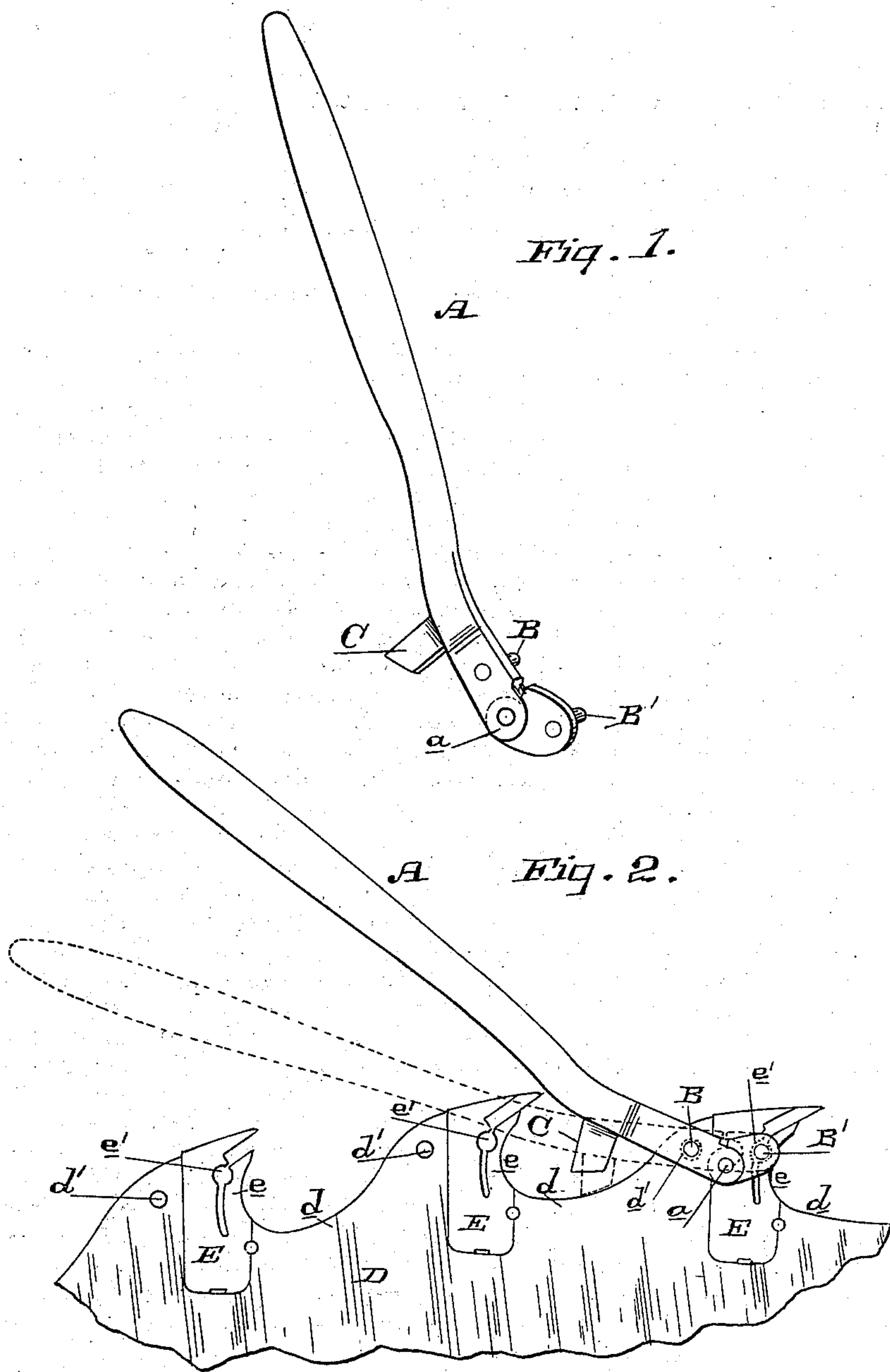
(No Model.)

F. W. COOK.

TOOL FOR MANIPULATING SAW TEETH.

No. 402,400.

Patented Apr. 30, 1889.



Witnesses,
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UNITED STATES PATENT OFFICE.

FREDERICK W. COOK, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO H. P. GREGORY & CO., OF SAME PLACE.

TOOL FOR MANIPULATING SAW-TEETH.

SPECIFICATION forming part of Letters Patent No. 402,400, dated April 30, 1889.

Application filed December 15, 1888. Serial No. 293,724. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. COOK, of the city and county of San Francisco, State of California, have invented an Improvement in Tools for Manipulating Saw-Teeth; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of wrenches which are especially adapted and are used for inserting and releasing the insertible teeth of saws; and my invention consists in a stock or bar having pins near one end for engaging the sockets in the saw-plate and bit-holder and hinged or pivotally jointed on a line between the pins, whereby they may be brought, by the bending of the stock at the joint, closer together to engage the sockets, and forced farther apart by the straightening of the stock to prepare the holder for the insertion or removal of the tooth or bit.

My invention further consists, in connection with said stock or bar provided with its engaging-pins and jointed, as mentioned, of a stop secured to the stock and adapted by coming in contact with the edge of the saw-plate to limit the movement of the stock and thus control the bending of its joint to prevent too great separation of its pins and injury to the bit-holder.

The object of my invention is to temporarily force the spring-limb of the holder into a position to permit the insertion of the saw tooth or bit or to release it to provide for its removal, and my wrench is especially adapted for use in connection with those bits or teeth which are seated in a socket in the holder and held therein by a spring-limb of said holder.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my wrench. Fig. 2 is a view showing its application and use.

A is a bar forming the stock of the wrench. Near its end and projecting from one of its sides are the pins B B'. On a line between these pins the bar is jointed or hinged, as shown at *a*. This joint may be made in any suitable manner, though I have here shown it formed by a central tongue on one piece fitting between the projecting lips on the

other piece and receiving a pivot-pin through them.

C is a short piece secured to or formed with the stock and serves as a stop.

In Fig. 2, D is the saw-plate having the throat portions *d*. E are the holders inserted and held in the plate in suitable manner. F are the bits or teeth seated in the holders and held in place by the spring-limbs *e*, which form part of the holders. In the contiguous edges of the spring-limbs *e* and the body of the holders are made the holes or sockets *e'*, and in the saw-plate back of the holders are made the holes or sockets *d'*. The distance between these holes or sockets *d'* and *e'* is such that when the pin B of the wrench is fitted into the former and the pin B' is fitted into the latter the stock bends downward at its joint between the two pins. Now by pressing down on the stock it turns about its pin B as a center, so that it bends upwardly at its joint, thereby separating the pins B and B', and the latter, fitting in socket *e'*, presses upon the spring-limb *e* of the holder and forces it away, so as to relieve the bit or tooth F of its pressure, and thereby allow said bit or tooth to be removed, or, in case no bit is in the holder, to allow one to be readily inserted. The piece C now coming in contact with the edge of the saw-plate in the throat *d* stops the further movement of the stock and defines the extent of the pressure on the spring-limb *e*, thereby preventing it from being forced away too far and suffering consequent impairment of its strength.

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

1. The wrench for manipulating saw-teeth, consisting of a stock having separated pins for engaging sockets in the saw-plate and bit-holder, as described, said stock being hinged or pivotally jointed on a line between the pins, whereby the latter may be brought closer together or forced farther apart by the bending of the stock at its joint, substantially as herein described.

2. The wrench for manipulating saw-teeth, consisting of a stock having separated pins for engaging sockets in the saw-plate and bit-holder, as described, said stock being hinged

or pivotally jointed on a line between the
pins, whereby the latter may be brought closer
together or forced farther apart by the bend-
ing of the stock at its joint, and a stop-piece
5 on said stock for limiting its movement by
contact with the saw-plate, substantially as
herein described.

In witness whereof I have hereunto set my
hand.

FREDERICK W. COOK.

Witnesses:

S. H. NOURSE,

H. C. LEE.