

(No Model.)

H. BICKEL.
SUCKER ROD ELEVATOR.

No. 442,942.

Patented Dec. 16, 1890.

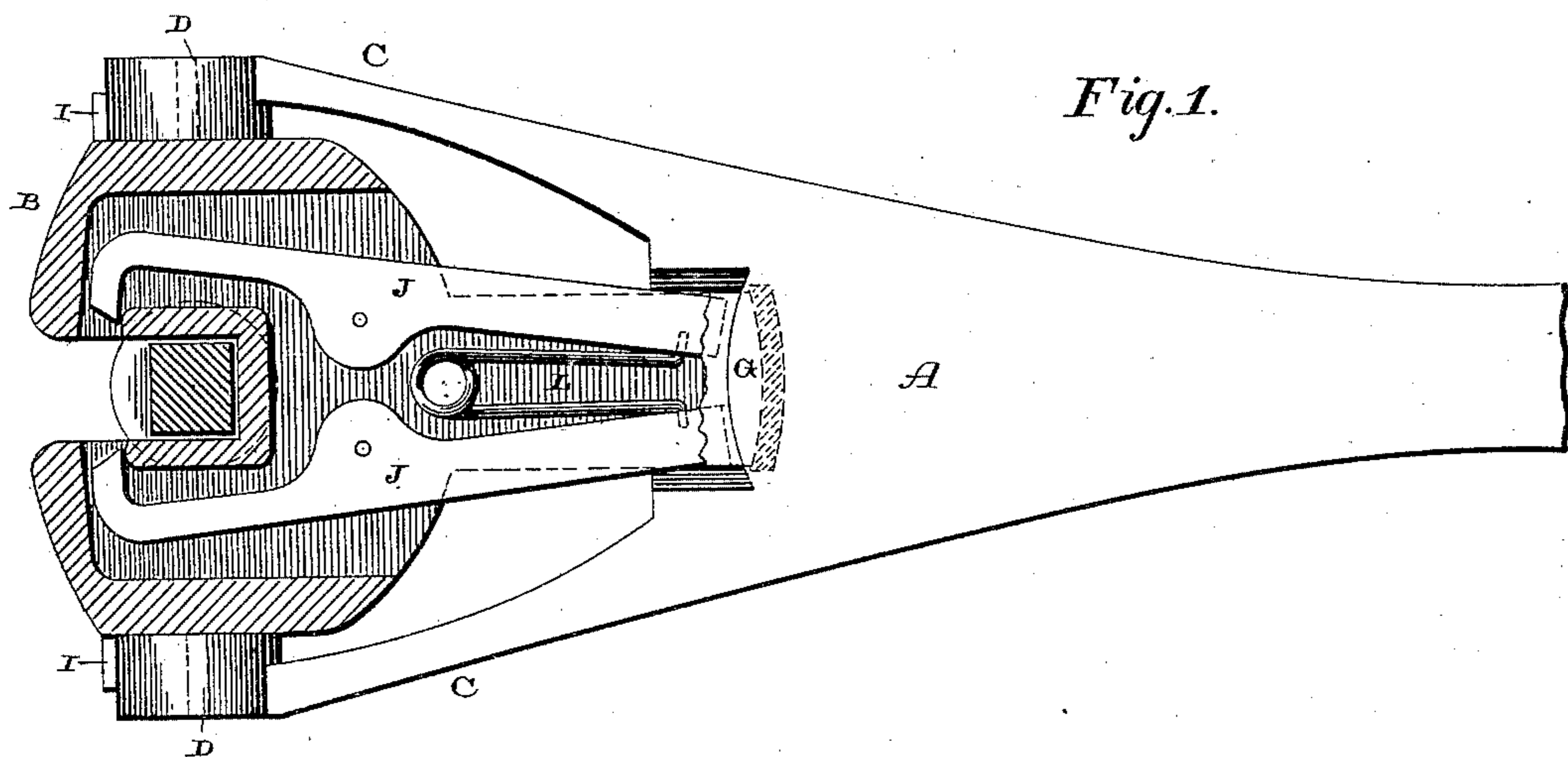


Fig. 1.

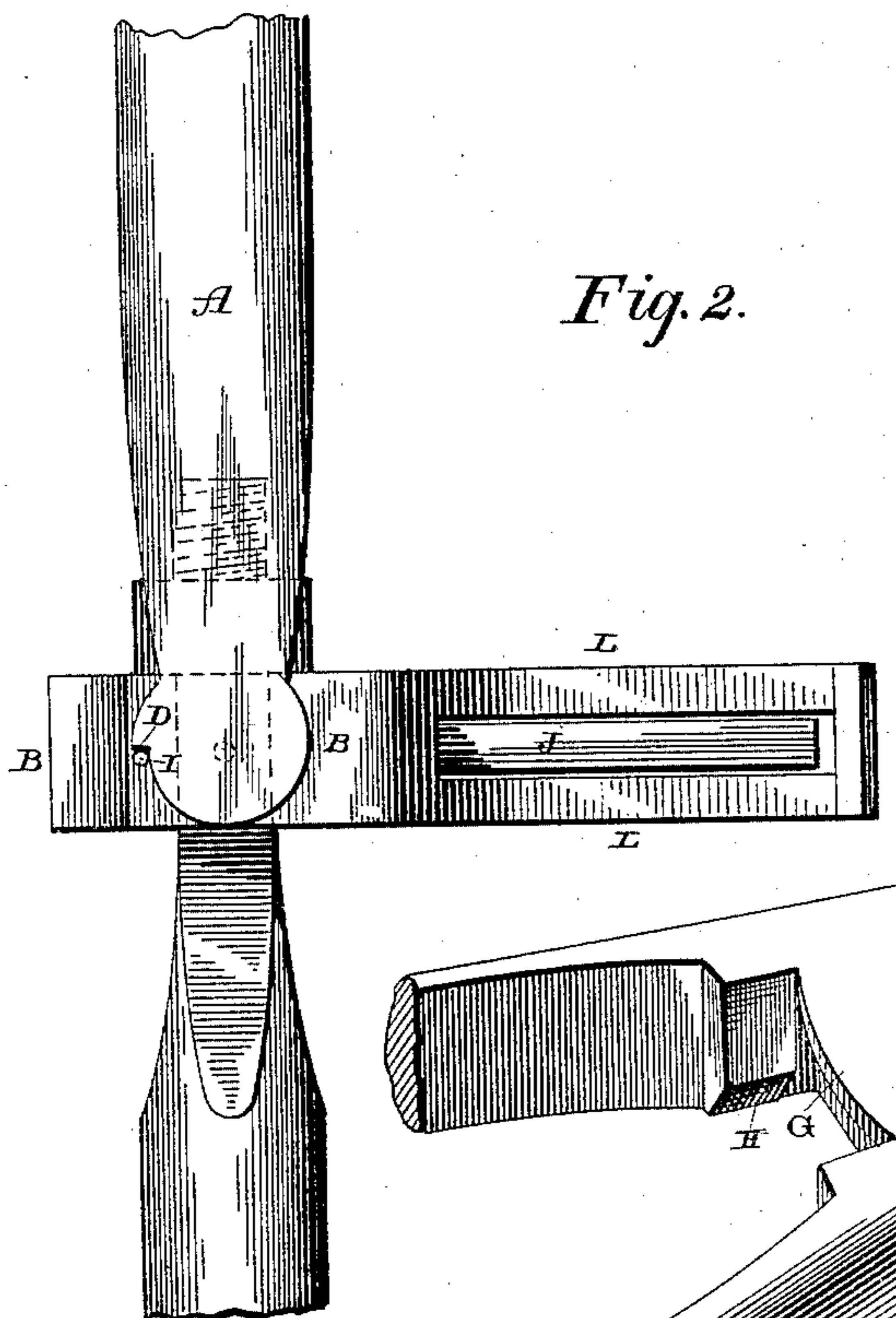


Fig. 2.

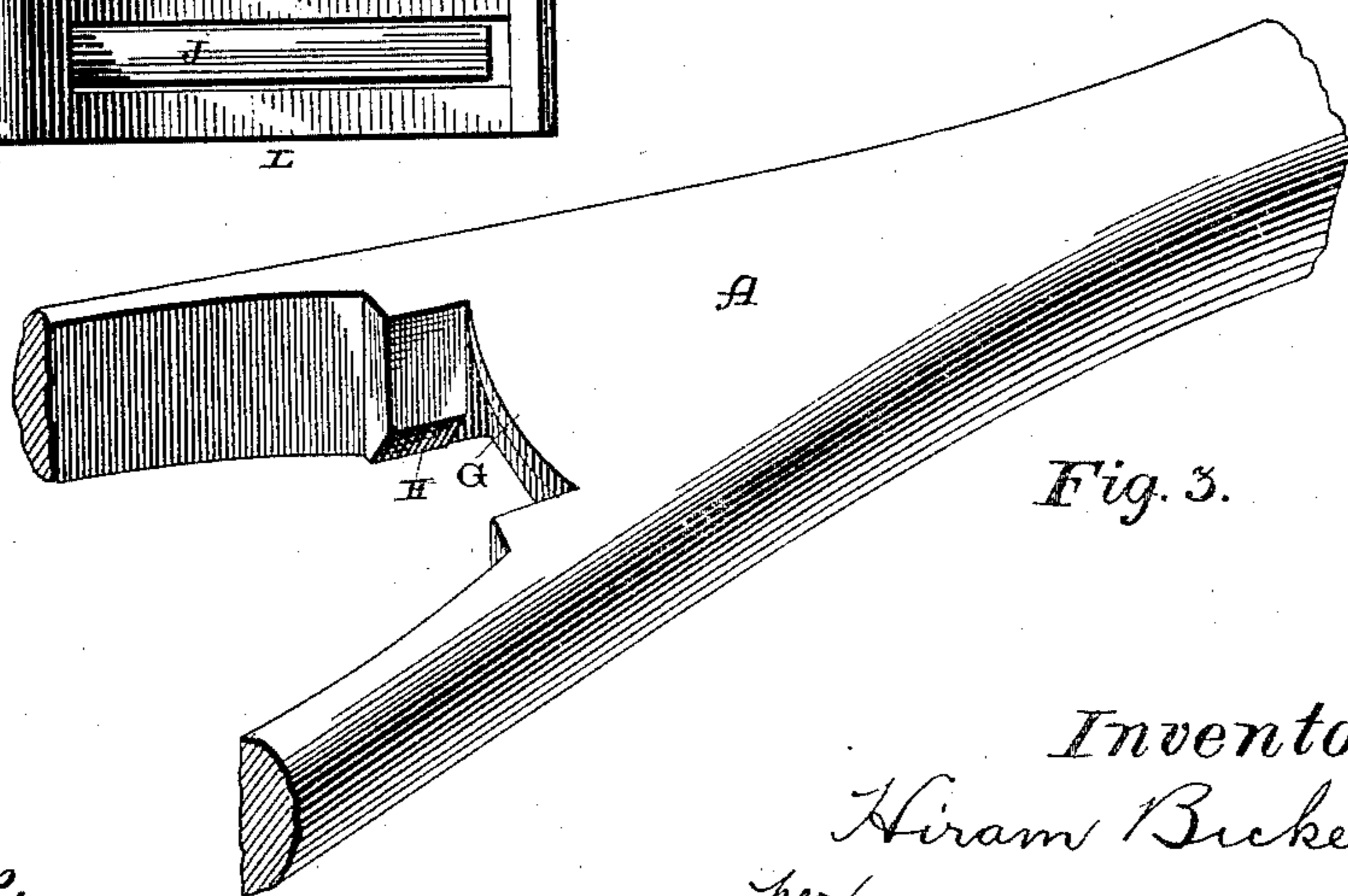


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

HIRAM BICKEL, OF GUFFEY, PENNSYLVANIA.

SUCKER-ROD ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 442,942, dated December 16, 1890.

Application filed September 17, 1890. Serial No. 365,221. (No model.)

To all whom it may concern:

Be it known that I, HIRAM BICKEL, of Guffey, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Sucker-Rod Elevators; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in sucker-rod elevators; and it consists in the combination and construction of parts, which will be fully described hereinafter.

The object of my invention is to provide a suitable means for taking hold of and locking the square neck of the sucker-rod into an angular jaw or block, so as to lower the rods into or pull them out of a well, and for screwing and unscrewing the rods, and to enable the jaw or block to be quickly and readily separated from the rod.

Figure 1 is a plan view of a device embodying my invention, the block and the lever being shown in a line with each other and the block shown in section. Fig. 2 is a side elevation of the same, showing the two parts at an angle to each other. Fig. 3 is a detail view showing the beveled sides on the lever or handle.

A represents the handle or lever, which will be of any desired length, and which is made bifurcated at its inner end, so as to allow the jaw or block B to be pivoted between the ends and partially revolve between them. Each of the prongs C of the rod or lever is provided with a shoulder or stop D to limit the distance that the block shall turn. In the inner end of the recess in the lever there is formed the stop or shoulder G, which serves to limit the movement of the jaw or block when the two parts are turned into a line with each other, and the sides of the recess below this shoulder G are beveled away, as shown at H, so that when the block or jaw is closed these beveled sides will cause the spring-catches to open for the purpose of releasing the rod. Journaled between the two prongs of the lever is the angular jaw or block B, which is adapted to turn through one-

quarter of a circle, so as to stand either in a line with the lever or handle, as shown in Fig. 1, when the jaw or block is applied to or removed from the neck of a sucker-rod, and to stand at a right angle thereto when the lever is to be used in lowering a sucker-rod into a well or removing it therefrom. In order to limit the turning movement of the block or jaw as the two parts are to be turned at right angles to each other, as shown in Fig. 2, the block is provided with two stops I, which catch against the shoulders D upon the prongs of the handle or lever, and thus prevent the block from turning beyond a certain point. In one end of the block or jaw is made a suitable recess, in which the neck of the sucker-rod is made to catch, and which rod is held as nearly as possible in a line with the handle or lever, so that only a direct pull will be exerted thereon. Pivoted in this block are the two catches J, which have their front ends to project into the recess in the end of the jaw or block to receive the neck of the sucker-rod, and which have their outer ends to project through the opening made in the block, so that these outer ends will project sufficiently far beyond the sides of the extended portion L of the block to be operated by the inclined sides H of the handle or lever when the jaw or block is turned into a line with it. The moment the lever is moved so that the extended end L of the block does not catch in the recess in the handle or lever these spring-catches snap outward at their outer ends and inward at their inner ones, so as to close the slot and thus prevent the rod from becoming detached from the jaw or block. The catches are also adapted to be operated by hand when the elevator is to be removed from the rod. While the block or jaw and the handle or lever are in a line with each other, as shown in Fig. 1, the catches are open, so that the jaw can be freely applied to or removed from the neck of a sucker-rod; but when the two parts are turned at an angle, as shown at Fig. 2, the catches are closed, so that the sucker-rod cannot possibly become detached while it is being lowered into or raised from the well.

Having thus described my invention, I claim—

1. The combination of the handle provided

with a pronged end and inclined edges upon
the inner sides of the prongs at or near their
inner ends, a block pivoted between the outer
ends of the prongs, having an opening for the
5 sucker-rod, and spring-actuated catches piv-
oted upon the block, their outer ends adapted
to retain the rod and their inner ends to en-
gage the inclined edges when the block and
handle are in a line, combined to operate in
10 the manner described.

2. The combination of the handle or lever
provided with a pronged end and a stop or
shoulder G, with the block or jaw provided

with a recess to receive the neck of the suck-
er-rod and with the studs or projections to 15
limit its turning movement, and the auto-
matically-acting catches pivoted in the block,
and which are operated by the sides of the
recess in the end of the handle or lever, sub-
stantially as described. 20

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

HIRAM BICKEL.

Witnesses:

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J. M. MCCLURE.