

No. 733,138.

PATENTED JULY 7, 1903.

F. D. BULLARD.
PIPE WRENCH.

APPLICATION FILED NOV. 3, 1902.

NO. MODEL.

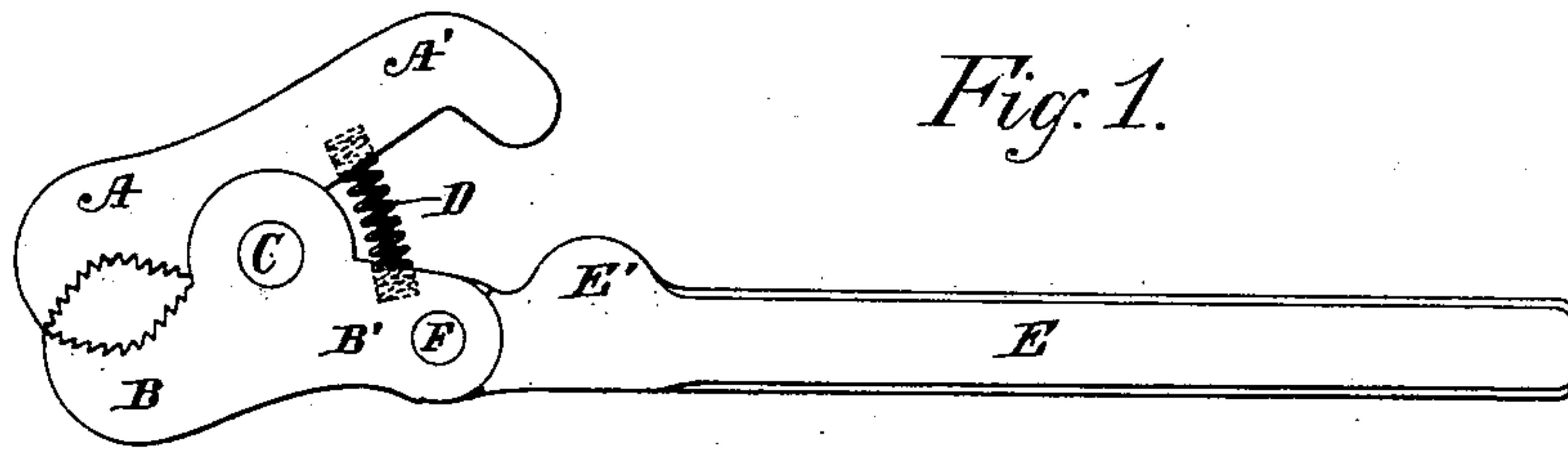


Fig. 1.

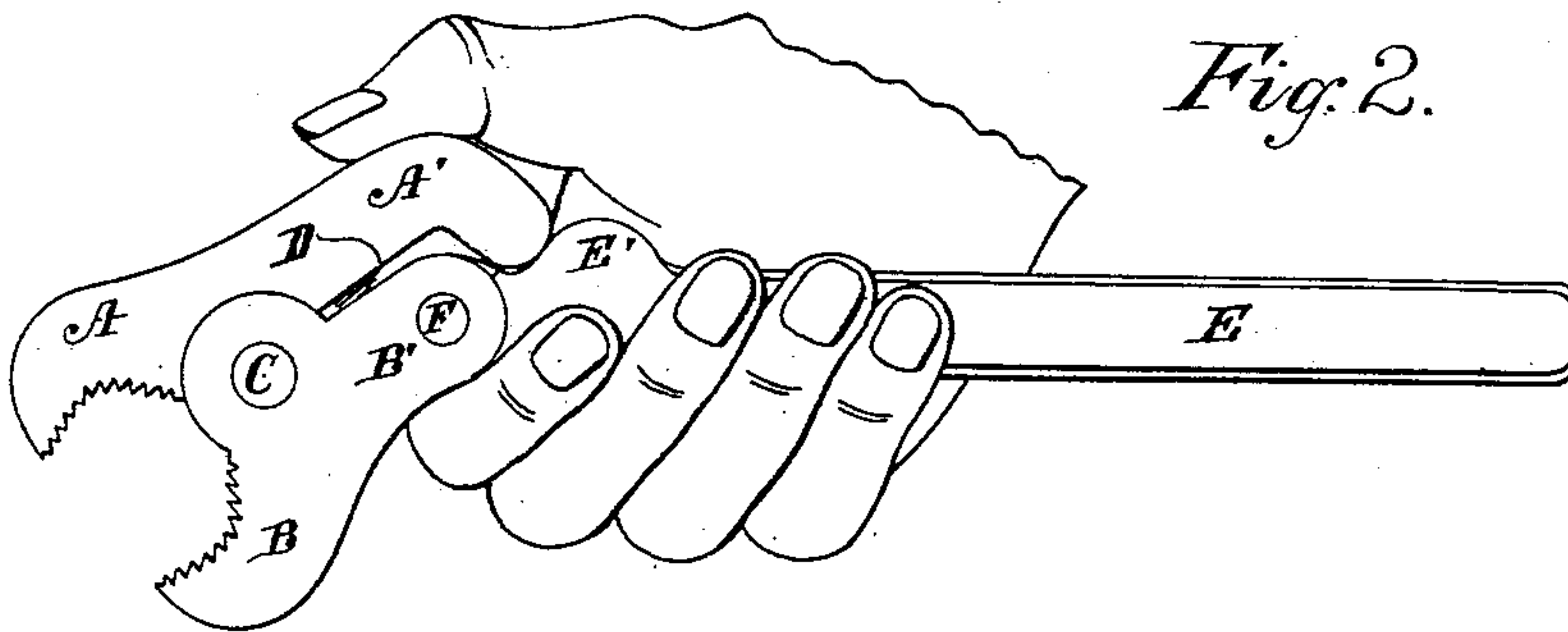


Fig. 2.

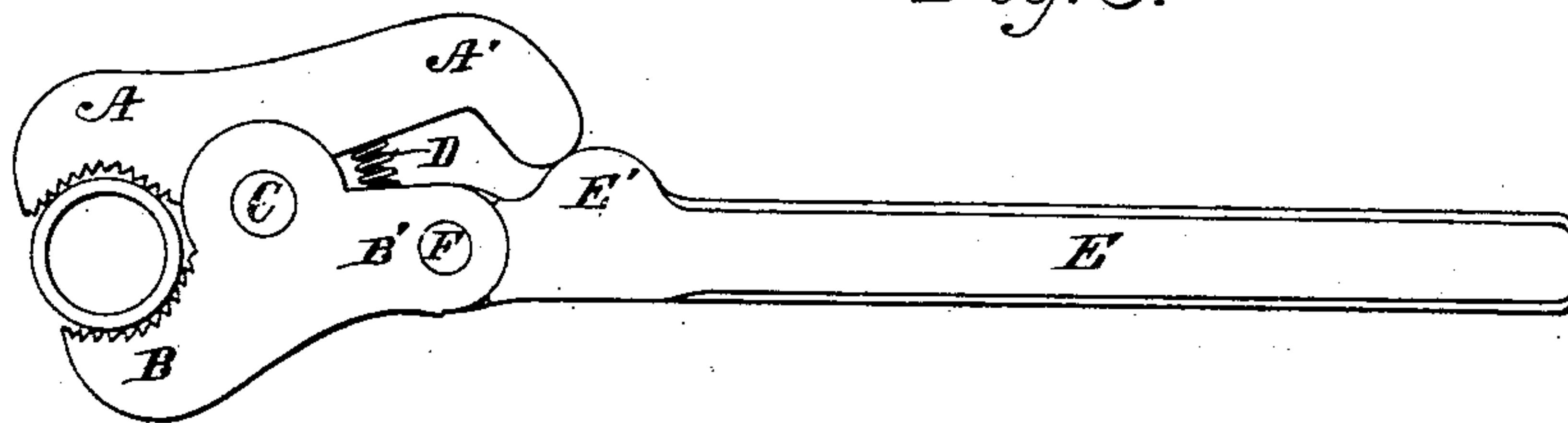


Fig. 3.

WITNESSES

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FRANK D. BULLARD, OF LOS ANGELES, CALIFORNIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 733,138, dated July 7, 1903.

Application filed November 3, 1902. Serial No. 129,980. (No model.)

To all whom it may concern:

Be it known that I, FRANK D. BULLARD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

The object of my invention is to provide a pipe-wrench which will operate effectively upon pipes of several different sizes and which will automatically adjust itself to the different sizes. I accomplish this object by the wrench described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my wrench in its normal position. Fig. 2 is a side elevation of my wrench as it is gripped by the hand ready to be placed upon a pipe. Fig. 3 is a side elevation of my wrench on a section of pipe.

In the drawings, A and B are the curved jaws, which are provided with teeth on their adjacent surfaces and terminate in shanks A' and B', one of which is shorter than the other. These jaws are pivoted together by riveted bolt C, and it is immaterial which of the shanks is the shorter. The shanks of these jaws are pressed apart by spring D, the ends of which are suitably housed in recesses in the respective jaws, which recesses are shown in dotted lines in Fig. 1, thereby keeping the jaws normally closed. The free end of the shank of the longer jaw is preferably bent inwardly, so as to extend around just in the rear of the shorter shank, so that it will more quickly contact with operating-lever E, which is pivoted to the shorter shank B' by riveted bolt F, than if the shank were straight or sloped off in the other direction. The end of the shank where it contacts with the lever is preferably rounded. The operating-lever is preferably provided with semicircular projection E' on its face, which contacts with shank A' when the wrench is being used on a pipe, so that it will more quickly operate the shank than if it were straight. This projection may have a groove in its face to prevent the end of the shank from slipping off. If desired, the operating-lever could be bent so as to give the same configuration to its edge which contacts

with the end of shank A', or the lever could be perfectly straight, but would then have to move farther to effect the same movement of the jaws than when provided with the semicircular projection.

It will be observed that my wrench is adapted to turn any pipe which is slightly less in diameter than the distance between the tips of the jaws at the point of their farthest separation and that it will work equally well upon a pipe whose diameter will keep the tips of the jaws from touching, from which it will be seen that my wrench is adapted for use upon pipes of several different sizes without any adjustment of parts other than the automatic adjustment which results from my construction. It will also be observed that the operating-lever is pivoted to the end of the shorter shank very close to the end of the longer shank and has therefore great power in forcing the jaws together, thereby giving them a strong bite on the pipe, and the greater the pressure on the lever the harder the jaws bite the pipe, so that it is almost impossible for the wrench to slip on the pipe.

If desired, the teeth may be formed from a separate piece of metal and be removably affixed in the jaws, so that when dull they may be taken out and sharpened or a new set may be placed therein.

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

1. A pipe-wrench composed of two curved jaws having teeth on their opposing surfaces pivoted together and terminating in shanks one of which is longer than the other, the longer shank having the end thereof bent so that it will pass down behind the end of the shorter shank; a lever pivotally united to the shorter shank and having a projection thereon at the point where said lever contacts with the end of the longer shank adapted to bear against the end of said shank to close the jaws; a spring between said shanks adapted to hold the jaws closed when not in use.

2. A pipe-wrench composed of two curved jaws having teeth on their opposing surfaces; said jaws being pivoted together and terminating in shanks, one of which is longer than

the other, the longer shank having the end thereof bent so that it will pass down behind the end of the shorter shank; a spring between said shanks adapted to hold the jaws normally closed; an operating-lever pivoted to the shorter shank.

In witness that I claim the foregoing I have

hereunto subscribed my name this 27th day of October, 1902.

FRANK D. BULLARD.

Witnesses:

G. E. HARPHAM,

M. C. NICKELESON.