

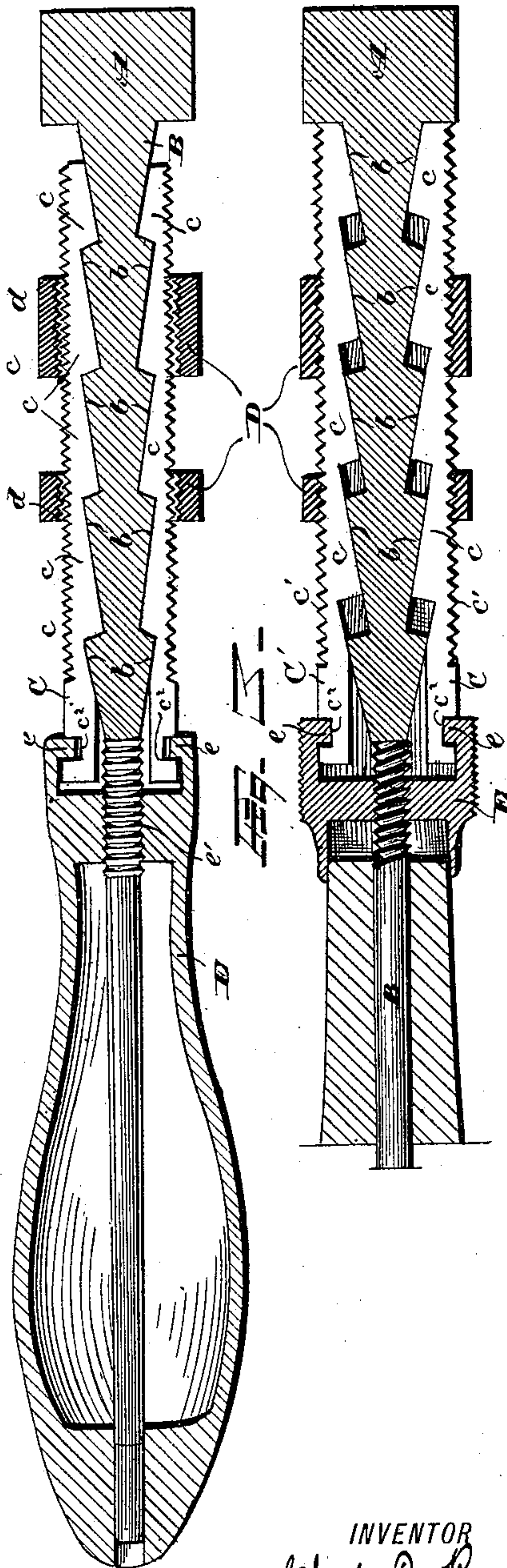
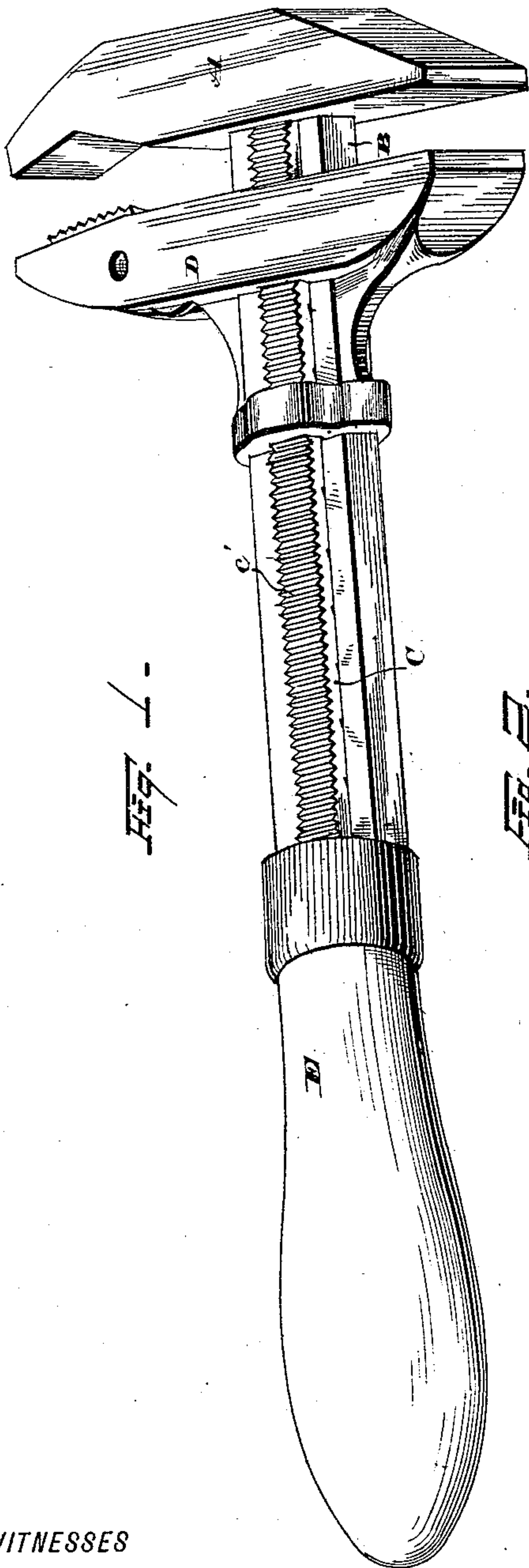
(No Model.)

C. C. RUNYAN.

WRENCH.

No. 336,262.

Patented Feb. 16, 1886.



WITNESSES

Wm. M. Monroe,
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UNITED STATES PATENT OFFICE.

CHARLES C. RUNYAN, OF MANSFIELD, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 336,262, dated February 16, 1886.

Application filed October 13, 1885. Serial No. 179,792. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. RUNYAN, of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Monkey-Wrenches; 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 the same.

My invention relates to improvements in monkey-wrenches; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective showing a wrench embodying my invention. Figs. 2 and 3 are elevations in section through the center of the wrench, showing the parts in different positions.

A represents the head or stationary jaw of the wrench, and is usually made integral with the shank B. The shank on the two opposite sides has series of depressions forming inclines *b*, the bases of which present toward the head A.

C are push-bars that have inclines *c*, that correspond with and engage the inclines *b*. The outer faces of these push-bars have ratchet-teeth *c'*, that correspond with and engage the teeth *d* on the inner surface of the movable jaw D. The push-bars have notches *c''*, that are engaged by an annular rib, *e*, of the handle E. The handle E is screw-threaded internally—for instance, at *e'*—to engage corresponding screw-threads on the shank. When the handle is unscrewed so far as to draw the inclines of the push-bars down the inclines *b* to the position shown in Fig. 2, the push-bars do not engage the jaw D, and the latter may be slid along the shank to the desired position. By reversing the handle the push-bars are moved toward the head A, the inclines *c* traveling up the inclines *b*, by means of which the push-bars are forced outward, and the teeth *c'* are made firmly to engage the teeth *d*, so as to hold the jaw D in the position to which the latter had been adjusted. As it takes but a slight turn of the handle to loosen or tighten

the push-bars, the convenience of the device will be readily understood.

In operating the wrench the solid jaw is usually placed against the nut on one side thereof, and the movable jaw is then slid along the shank against the other side of the nut. Now, when the push-bars are actuated to secure the movable jaws, the engaging ratchet-teeth, before they become firmly seated in each other, crowd the movable jaw more firmly against the nut, by reason of which there is no liability of marring the corners of the nut, as is the case when the wrench fits the nut loosely.

With light wrenches one push-bar will answer the purpose very well, and in such cases the push-bar had better be located on the edge of the shank; also, in small wrenches one incline on the shank and a corresponding incline on the push-bar would answer the purpose.

Instead of the handle E being made to turn, the handle might be arranged stationary on the shank, and a thumb-nut, *E'*, (shown in Fig. 3,) might be employed for actuating the push-bars.

What I claim is—

1. In a monkey-wrench, the combination, with the shank of the wrench, having one or more series of inclines along the face thereof, and a movable jaw having internal teeth, of one or more push-bars, the latter having teeth for engaging the teeth of the movable jaw and inclines for engaging the inclines of the shank, and a screw-threaded handle or thumb-nut, as the case may be, for actuating the push-bars, the parts being arranged substantially as set forth.

2. In a monkey-wrench, the combination, with the shank of the wrench, the same having a series of inclines on opposite sides of the shank, said inclines having their bases presenting toward the head of the wrench, and a movable jaw arranged to slide on the shank, said jaw having internal teeth, of push-bars having inclines corresponding with and engaging the inclines of the shank, and having teeth for engaging the teeth of the movable jaw, and a screw-threaded handle or nut for actuating the push-bars, the parts being arranged substantially as set forth.

3. In a monkey-wrench, the combination, 100

- with inclines on the shank of the wrench, and a movable jaw with internal teeth, of push-bars provided with inclines and teeth, and suitable mechanism, preferably a screw-threaded handle, for operating the push-bars, with the parts arranged substantially as indicated, whereby the end movement of the push-bars that distend the latter forces the movable jaw toward the work, substantially as set forth.
- 10 4. In a monkey-wrench, the combination, with one or more inclines on the shank, and a movable jaw operating on said shank, said

movable jaw having internal teeth, of one or more push-bars having teeth to engage the teeth of the movable jaw, and having one or more inclines to engage the incline or inclines of the shank, substantially as set forth. 15

In testimony whereof I sign this specification in the presence of two witnesses, this 3d day of October, 1885.

CHARLES C. RUNYAN.

Witnesses:

J. S. FARMER,
W. W. SMITH.