

No. 720,784.

PATENTED FEB. 17, 1903.

M. L. COCHRAN.
WRENCH.

APPLICATION FILED SEPT. 6, 1902.

NO MODEL.

Fig. 1.

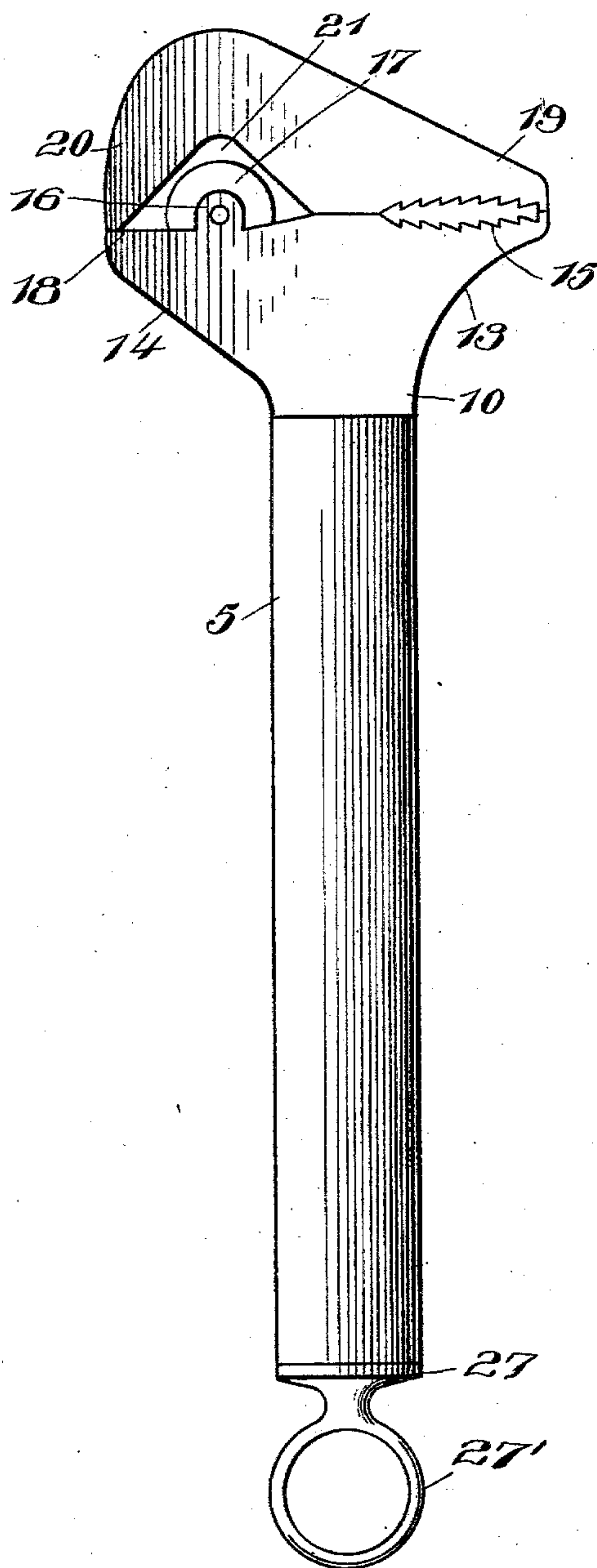
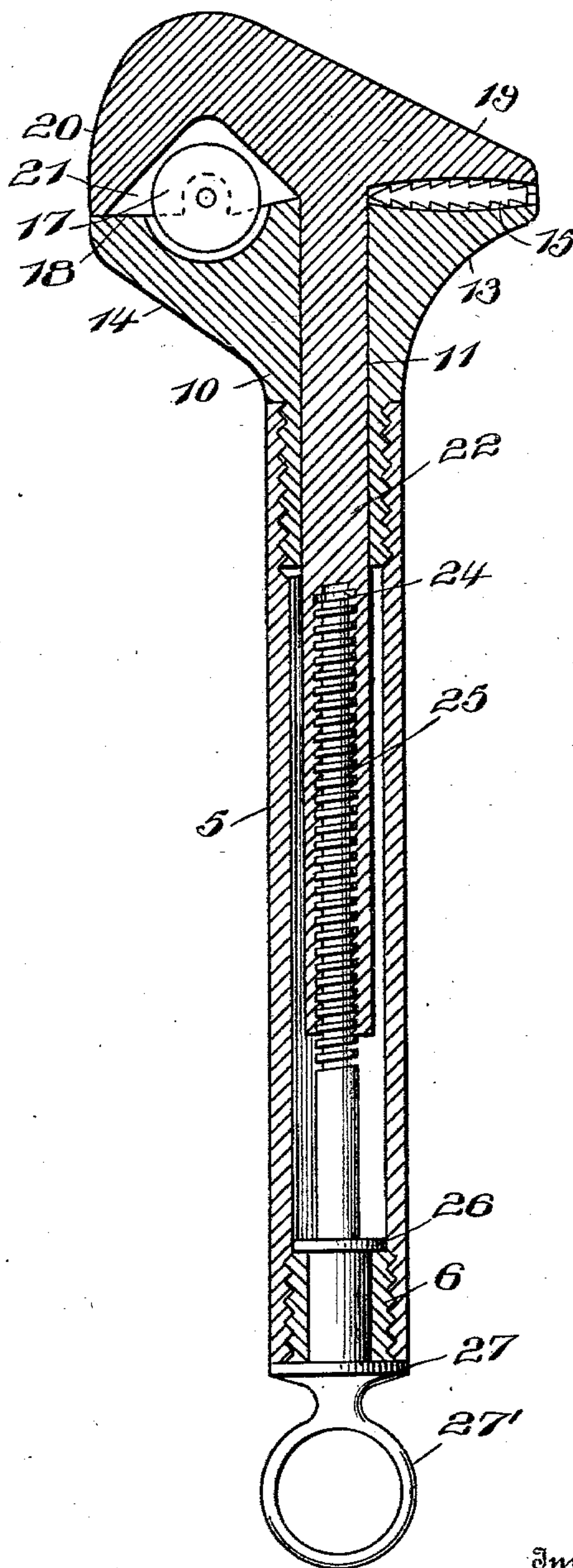


Fig. 2.



Witnesses

T. P. Brett
Harry O. Chandler

Inventor

M. L. Cochran

By *James H. Chandler*

Attorneys

UNITED STATES PATENT OFFICE.

MICHAEL LOWLERY COCHRAN, OF DUNLO, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 720,784, dated February 17, 1903.

Application filed September 6, 1902. Serial No. 122,424. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL LOWLERY COCHRAN, a citizen of the United States, residing at Dunlo, in the county of Cambria, State of Pennsylvania, have invented certain new and useful Improvements in 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 appertains to make and use the same.

This invention relates to pipe-working tools; and it has for its object to provide a combined wrench and pipe-cutter wherein the parts will be so constructed and combined as to produce a tool that will be simple and cheap of manufacture and efficient in its operation.

A further object of the invention is to so construct and combine the parts as to insure a positive and intense gripping action between the jaws of the wrench and a corresponding action between the parts of the cutter.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in both views, Figure 1 is a side elevation of a tool embodying the present invention. Fig. 2 is a longitudinal section through the tool, the adjusting-screw being shown in elevation.

Referring now to the drawings, the present tool comprises a handle portion 5, consisting of a section of pipe which is internally threaded at its ends and in one end of which is screwed a two-part or longitudinally-divided bushing 6, which forms, in effect, an inwardly-directed flange. In the opposite end of the tubular handle from the flange is screwed a block 10, having formed thereon two oppositely-directed jaws 13 and 14. The block 10 may be cast or otherwise formed integral with its jaws, and longitudinally there-through is a cross-sectional rectangular passage 11, which opens into and is in axial alignment with the tubular handle. The jaw 13 is slightly concaved and has transverse teeth 15 to insure positive gripping of the jaw upon the pipe. The jaw 14 is provided with upwardly-directed parallel ears 16, having bearings in which are received the trunnions of a cutting-wheel 17, and beyond the cut-

ting-wheel is a shoulder 18. A head is provided having two jaws 19 and 20, one of which is disposed opposite to and corresponds to the jaw 13, while the other jaw 20 has an angular recess 21, in which is received the cutting-wheel when the jaws 20 and 14 are brought together.

The head referred to has a stem 22, which is slidably fitted in the cross-sectionally-rectangular passage 11, it being also cross-sectionally rectangular, and through the inner end portion of the stem is formed a longitudinal passage 24, which is threaded and receives an adjusting-screw 25.

The adjusting-screw 25 is provided with spaced flanges 26 and 27, between which is engaged the flange forming the bushing above referred to, the two-part formation of the bushing permitting it to be adjusted in the space between the flanges and then screwed into the end of the handle. The end of the screw projects from the rear end of the handle and is provided with a ring 27, in which may be engaged a cross-bar to facilitate application of maximum pressure to the screw.

With this construction it will be seen that there is provided a wrench which may be manufactured at a low price, in which the parts may be easily replaced when they become worn, and in which the adjustment will be easy and positive.

It will be noted that when the adjusting-screw is rotated in one direction to throw the jaws together the outer flange of the screw will impinge against the end of the handle to prevent longitudinal movement of the screw and that when the screw is rotated in the opposite direction to move the jaws apart the inner flange of the screw will impinge against the inner end of the bushing, so that longitudinal movement of the screw will be prevented.

What is claimed is—

A wrench comprising a tubular handle having internally-threaded ends, a block screwed into one end of the handle and having oppositely-disposed jaws, said block having also a longitudinal, cross-sectional angular passage opening into the handle, a head having jaws corresponding to those of the block, a hollow internally-threaded stem for the head, slidably fitted in the passage of the block and

projecting into the handle, an adjusting-screw
passed into the handle and engaged with the
threads in the stem, said screw having spaced
flanges lying respectively within and without
5 the handle, and a sectional bushing screwed
into the end of the handle and lying between
the flanges to receive pressure thereof.

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

MICHAEL LOWLERY COCHRAN.

Witnesses:

MARIA JACKSON,
JOHN G. JACKSON.