

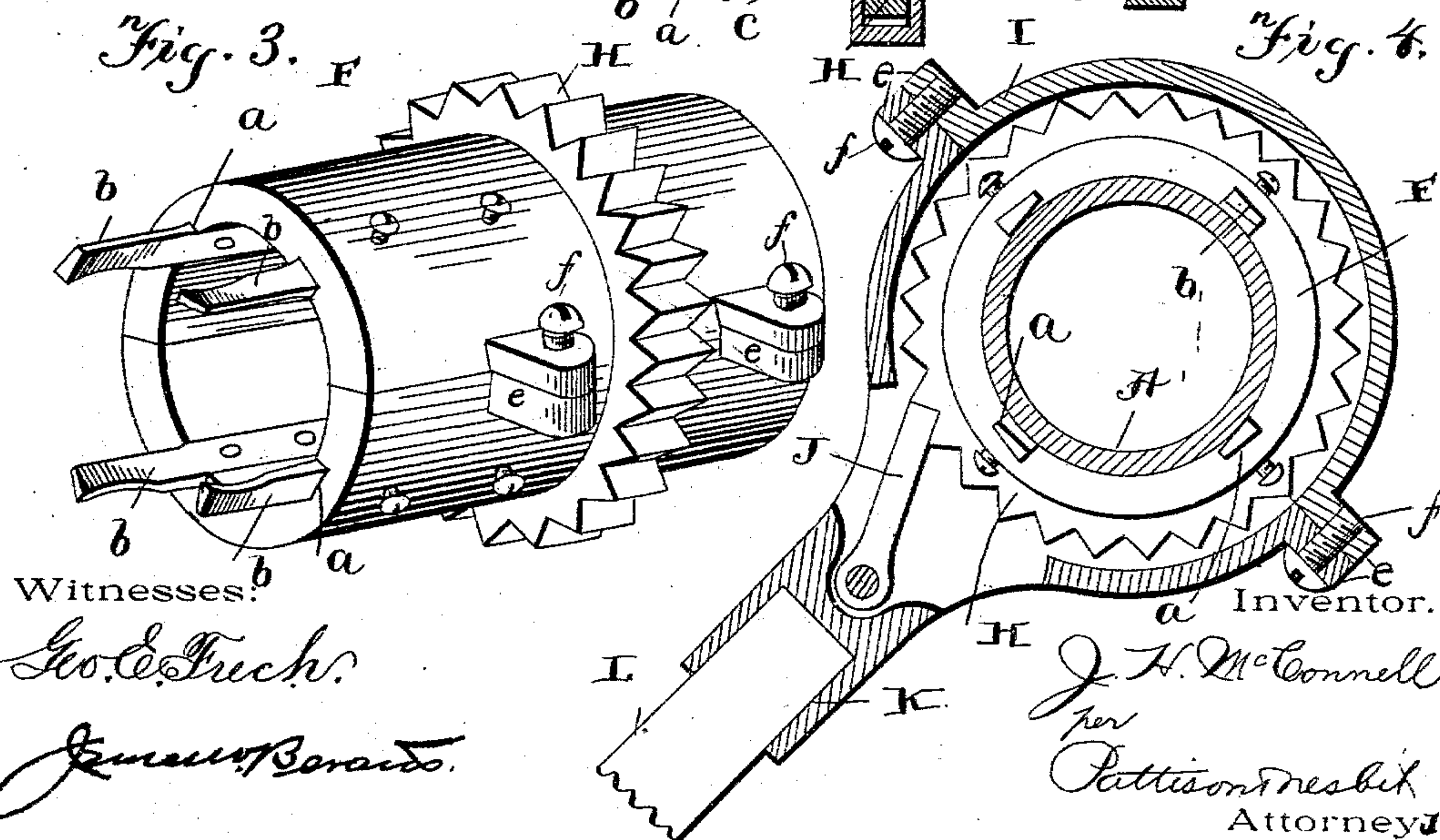
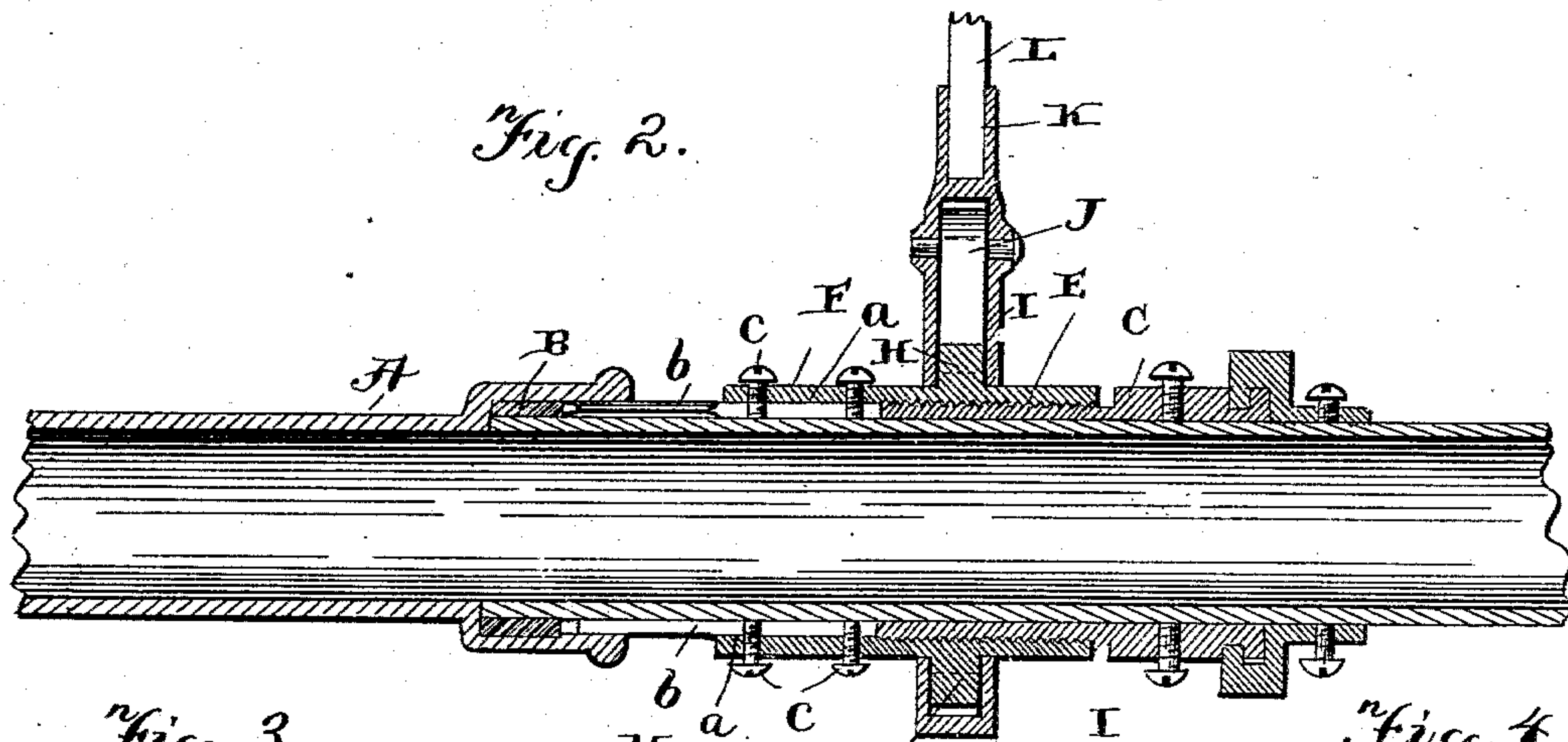
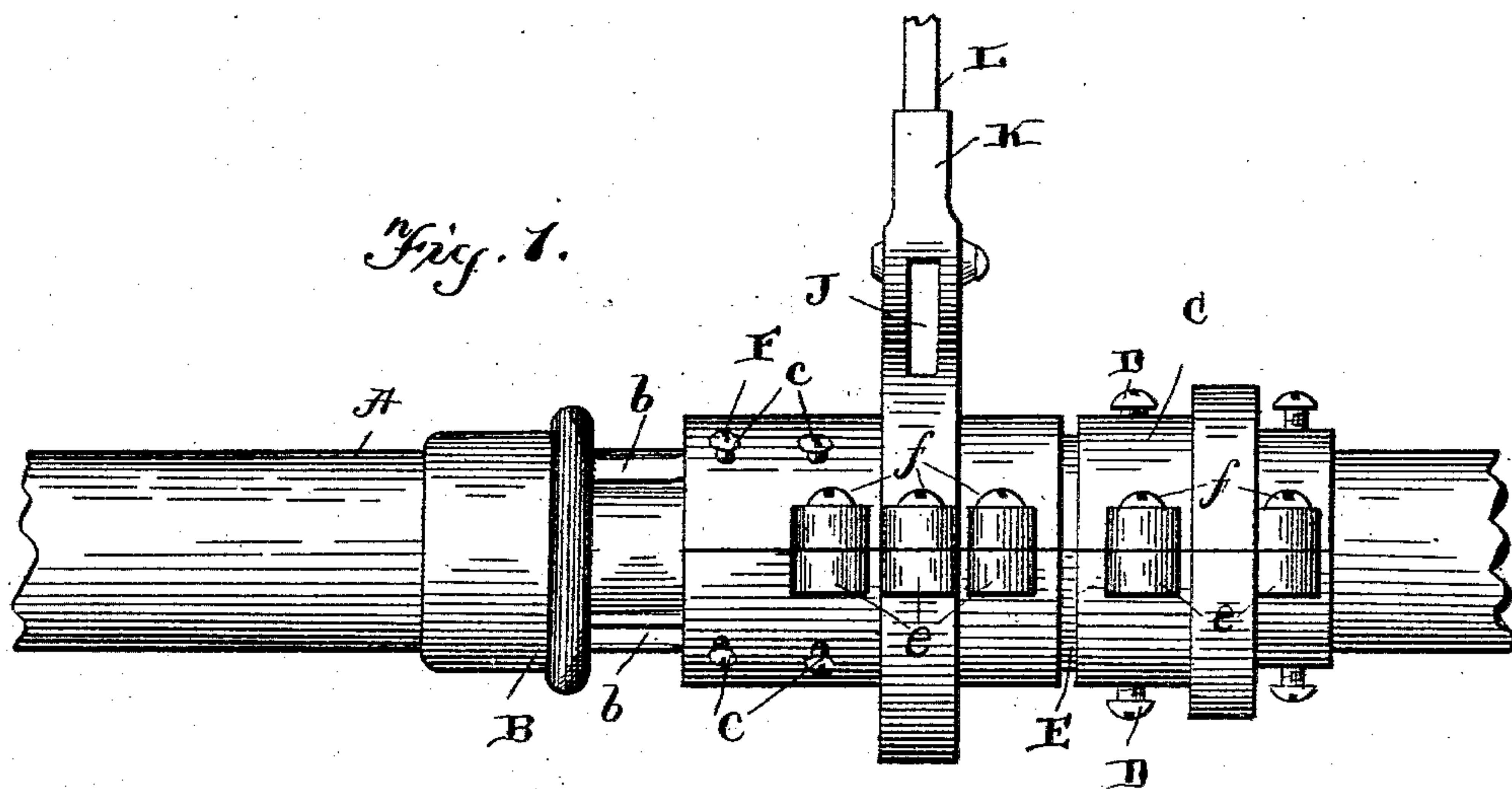
(No Model.)

J. H. McCONNELL.

MACHINE FOR CUTTING OUT LEAD JOINTS IN PIPES.

No. 551,557.

Patented Dec. 17, 1895.



UNITED STATES PATENT OFFICE.

JAMES H. McCONNELL, OF MARIETTA, OHIO.

MACHINE FOR CUTTING OUT LEAD JOINTS IN PIPES.

SPECIFICATION forming part of Letters Patent No. 551,557, dated December 17, 1895.

Application filed March 20, 1895. Serial No. 542,487. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. McCONNELL, of Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Machines for Cutting Out Lead Joints in Pipes; 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 improvements in machines for cutting lead from pipe-joints; and it consists in the construction, combination, and arrangement of parts which will be fully described hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a machine adapted to be applied to pipes containing lead joints, the same having longitudinally-extending cutters carried by a sleeve, the said sleeve adapted to be fed forward as it is rotated, thus producing an automatic longitudinal feed therefor.

A further object of my invention is to provide alternate narrow and thick cutters, whereby the narrow or thin cutters remove a thin shaving in advance of the thick cutters which remove a narrow strip on each side, thus reducing the width of the chip and avoiding clogging.

In the accompanying drawings, Figure 1 is a side elevation of a machine embodying my invention, the same being shown applied to a pipe for operating. Fig. 2 is a longitudinal vertical section of Fig. 1. Fig. 3 is a perspective view of the ends of the sleeve carrying the cutters, the cutters being shown in position. Fig. 4 is a cross-sectional view taken at one side of the ratchet.

Referring now to the drawings, A indicates a pipe having a lead joint B, and C is a sleeve placed upon the pipe and adapted to be clamped thereto by means of set-screws D. This sleeve is provided with an external screw-threaded portion E, and a rotatable sleeve F surrounds the screw-threaded portion E of the sleeve C, and is provided with a corresponding internal screw-threaded portion, so that when the sleeve F is rotated it is fed forward by means of the screw-threaded portion

thereof and the corresponding screw-threaded portion E of the sleeve C, as will be readily understood. The opposite end of this rotatable sleeve F is provided with longitudinal grooves *a*, in which are placed the longitudinally-projecting cutters *b*, held in place by means of the screws *c* or other equivalent devices.

Either formed as an integral part of or rigidly attached to the outer side of the sleeve F is a ratchet-wheel H, and a rotatable boxing I surrounds and incloses this ratchet-wheel H and carries a pawl J, adapted to engage the said wheel. This boxing I is provided with a laterally extending portion K or socket adapted to receive an operating-handle L, by means of which the said boxing is rotated around the ratchet. The pawl is so set that when the boxing is rotated in one direction it interlocks with the ratchet-wheel, thus causing the sleeve F to rotate, and when the boxing is turned in the opposite direction the pawl freely moves over the wheel, which will be readily understood.

Every other cutter *b* is made thinner than the succeeding cutter and made to slightly project beyond the succeeding thicker cutter, whereby the thin preceding cutters remove a narrow chip while the following thicker cutters remove a narrow chip at each side, the object of which is to reduce the size of the chip and prevent clogging, which would be liable to occur were the cutters made all of the same thickness.

The sleeves C and F are each made in two parts longitudinally, and provided with laterally-extending ears *e*, through which the clamping-screws *f* pass and by means of which they are securely clamped together.

The object of this construction is to permit the attaching of the device to pipes by separation thereof.

It will be seen from the above description that I have produced a very simple mechanism for removing the lead joints of pipes, which has heretofore been a very difficult task.

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

1. A device for removing lead joints from pipes, comprising a sleeve adapted to be at-

tached to a pipe, a rotatable sleeve endwise movable upon the attachable sleeve, and longitudinally extending knives secured to one end of the rotatable sleeve and extending outward in the same plane as the inner surface of the rotatable sleeve and having their ends formed into cutters for the purpose described.

2. A machine for removing lead joints from pipes, comprising a rotatable longitudinally movable sleeve adapted to be placed upon a pipe, and a longitudinally extending cutter or cutters attached to, and carried by the sleeve, said cutter or cutters extending beyond the sleeve on a line with the interior of the said sleeve which carries them, thus adapting the machine for the purpose described.

3. A machine for removing lead joints from pipes comprising a rotatable longitudinally movable sleeve, a series of longitudinally extending cutters carried thereby, the advanc-

ing cutters being thinner than the cutters which follow, for the purpose described.

4. A device for the purpose described comprising a longitudinally separable non-rotatable sleeve adapted to be clamped to a pipe and having an external screw thread, a longitudinal separable rotatable sleeve having an internal screw thread engaging the screw of the non-rotatable sleeve, longitudinally extending cutters carried at the opposite end of the rotatable sleeve and extending outwardly in the same plane as the plane of the inner side of the non-rotatable sleeve, and a means for rotating the rotatable sleeve, the parts all combined for the purpose described.

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

JAMES H. McCONNELL.

Witnesses:

HENRY ROESER,
JNO. STURGISS.