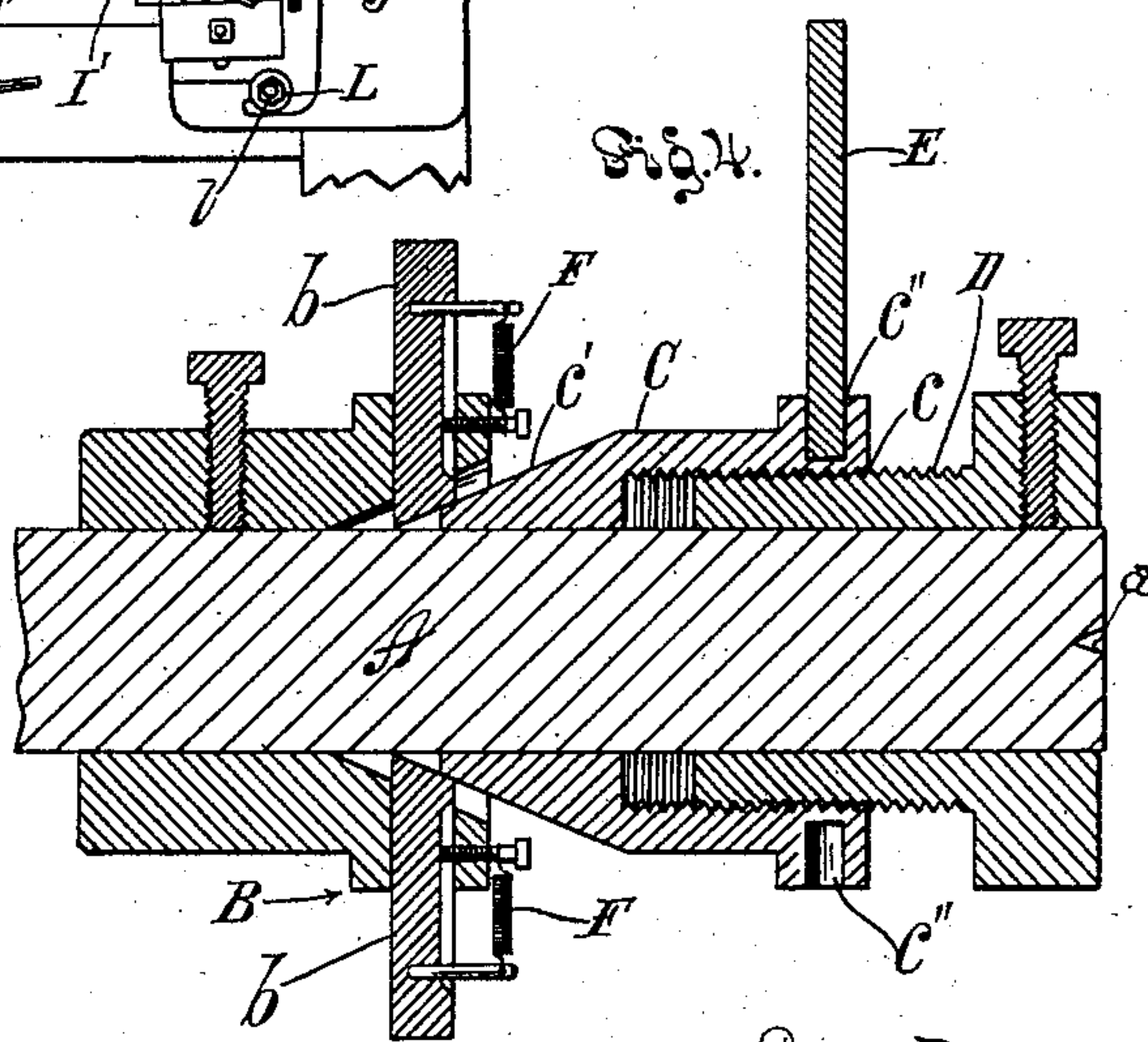
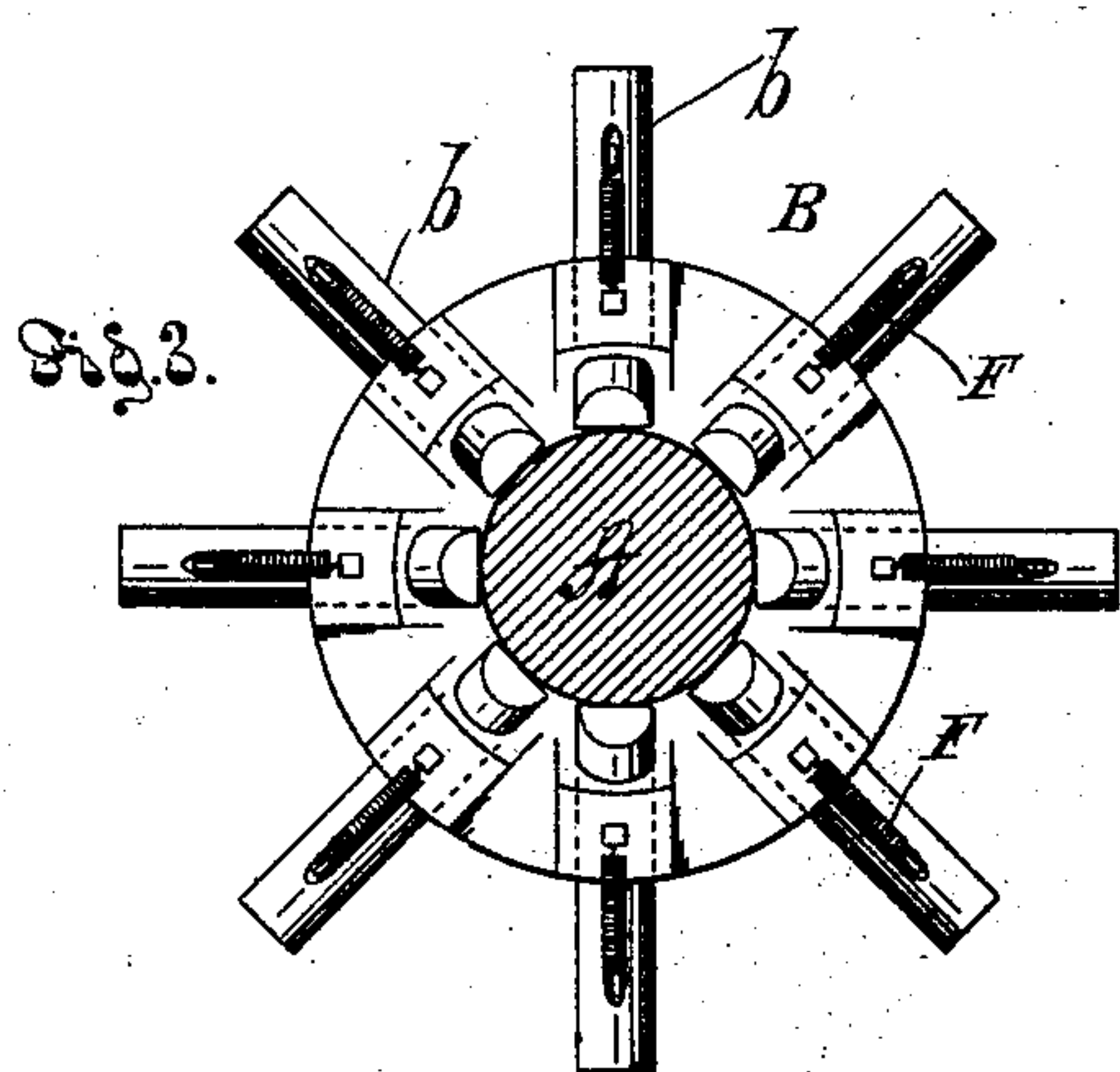
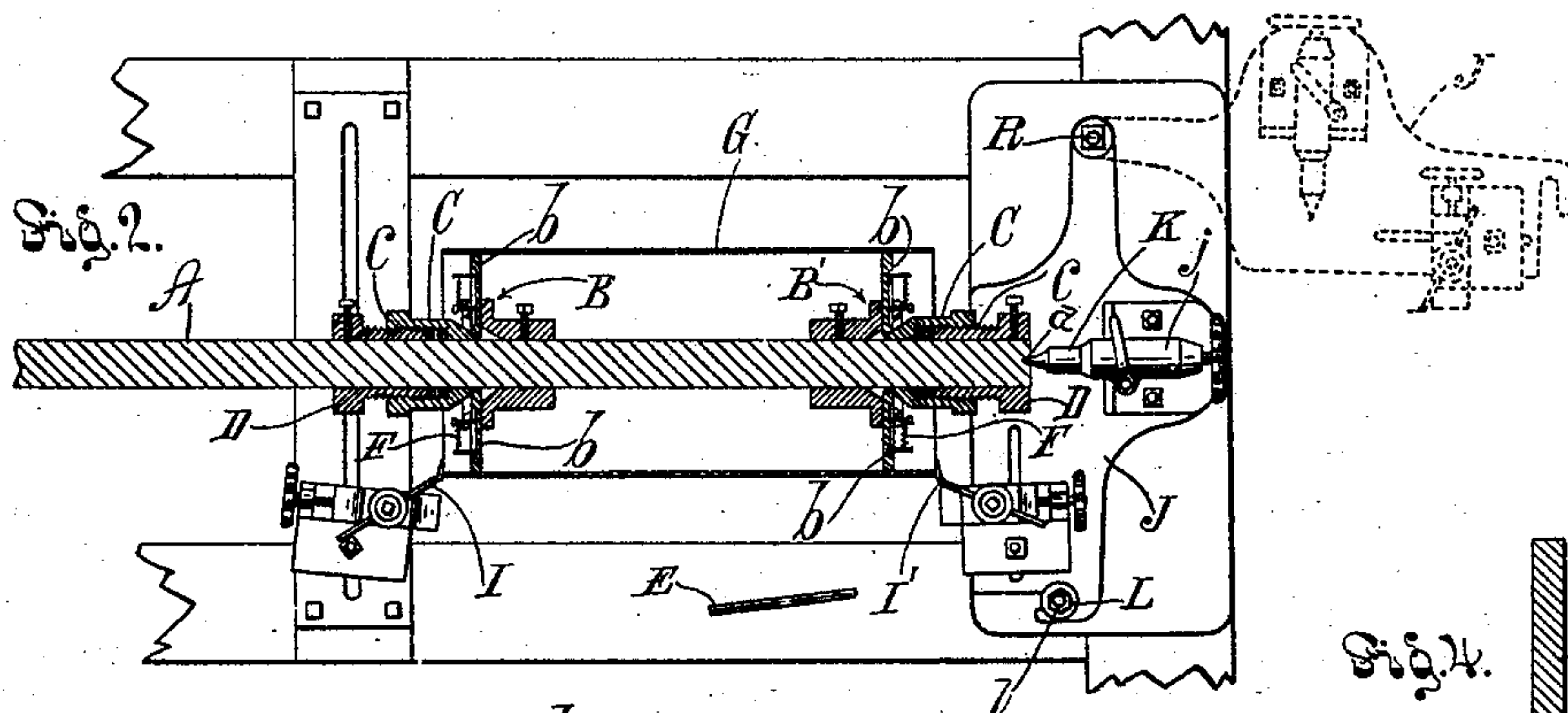
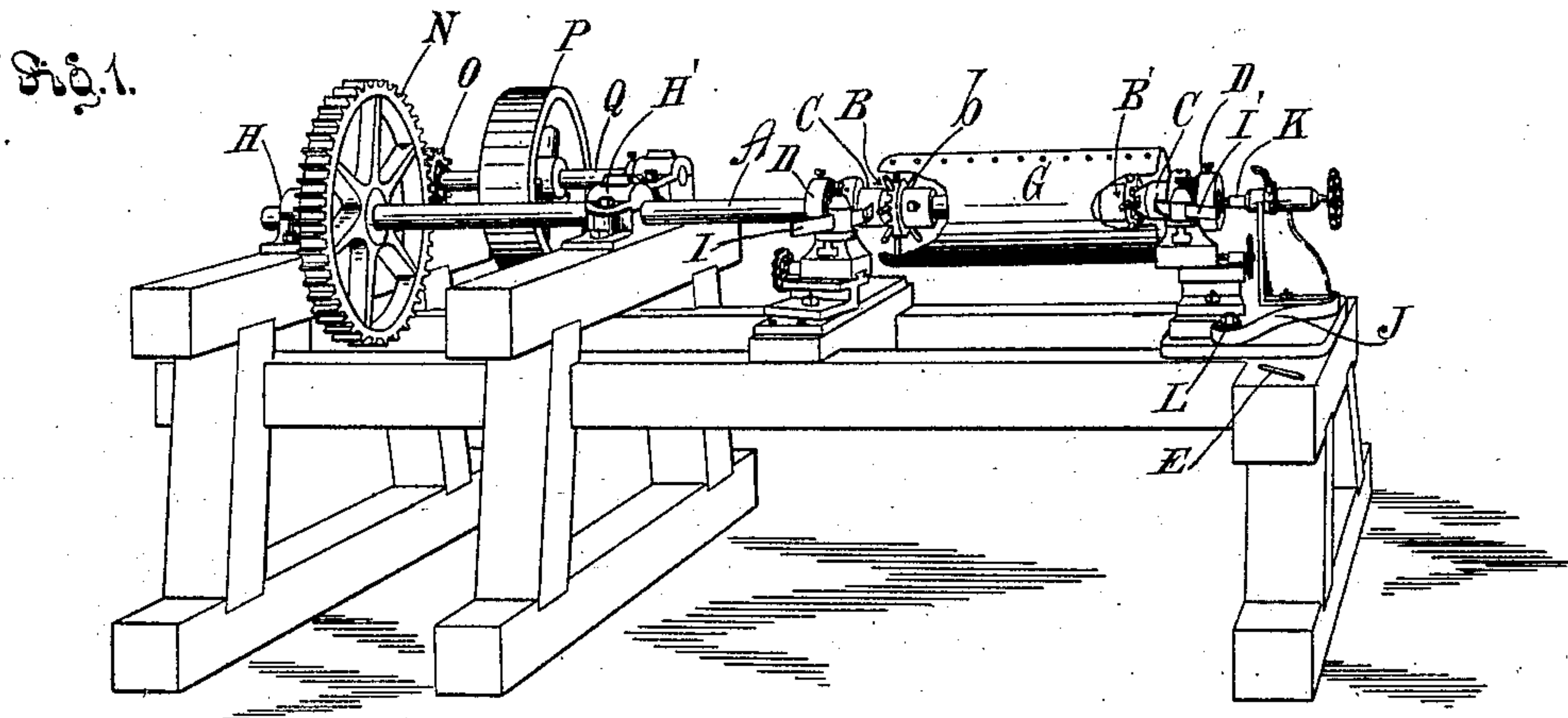


No. 763,568.

PATENTED JUNE 28, 1904.

O. QUANDT.
PIPE DRESSING MACHINE.
APPLICATION FILED OCT. 4, 1899.

NO MODEL.



Witnesses
Seymouringman.
J. Townsend.

Otto Quandt *Inventor*
By Townsend Bros.
his Attys.

UNITED STATES PATENT OFFICE.

OTTO QUANDT, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO ARTHUR C. HARPER, OF LOS ANGELES, CALIFORNIA.

PIPE-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 763,568, dated June 28, 1904.

Application filed October 4, 1899. Serial No. 732,560. (No model.)

To all whom it may concern:

Be it known that I, OTTO QUANDT, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Pipe-Dressing Machine, of which the following is a specification.

My invention is designed for truing the ends of pipe-sections in the manufacture of sheet-metal pipe. The pipe to which I more particularly refer is pipe made for well-casings and the like and constructed of sections of two sizes, two sections of the smaller size being inserted half-way into a section of the larger size and sections of larger size driven onto the sections of smaller size, so that the pipe consists of a double thickness of pipe-sections driven together and with lapping joints. Such pipes are often sunk in the earth to a depth of two thousand feet, so that any slight variation from truly-squared ends may produce very serious deflection of the pipe and prevent the same from being driven to the required depth. It is important in constructing a pipe of this kind that the ends of each section be exactly at right angles to the axis of the pipe, and heretofore the pipe has ordinarily been trued at the ends at great expense of time and labor by means of shears and files.

The object of my invention is to provide a simple and effective machine for rapidly and perfectly performing this work. In order to accomplish said object, I provide a machine having expansible heads mounted on a mandrel one end of which is supported by a swinging tail-stock or carriage having a center seat *a*, adapted to hold the end of the mandrel.

My invention is applicable for truing and beveling the ends of hollow open-ended cylinders of any kind. It can be applied in various ways.

The accompanying drawings illustrate my invention in one of the forms in which it can be applied.

Figure 1 is a perspective view of my machine in operation, a section of pipe being shown in position to be dressed, parts of the same being broken away to expose the mandrel-head. Fig. 2 is a fragmental plan-section

along the axis of the mandrel. Fig. 3 is an elevation of one of the mandrel-heads of one form in position on the shaft or mandrel, which is shown in cross-section. Fig. 4 is an enlarged axial section of the head in place on the mandrel ready to receive the pipe to be dressed. Means for expanding the radial arms are also shown.

My newly-invented pipe-dressing machine comprises a mandrel A, having in its end a center seat *a*, two heads B B', fixed to the free end of the mandrel to rotate therewith and respectively provided with radial sliding arms *b*, means for forcing said arms outward to engage the inside of the pipe to be trimmed, means for rotating the mandrel, and a cutter for cutting the end of the pipe when the same is held by said arms. In practice two cutters are preferably provided, one near each of the heads and each located outside of the plane of rotation of said arms—that is to say, the heads are between the two cutters, so that when the heads are in the pipe the cutters can be respectively adjusted to cut away the opposite ends of the pipe-section. The means for forcing said arms outward to engage the inside of the pipe to be trimmed may be constructed in different ways. In Figs. 2 and 4, C indicates a tapered sleeve which slides upon the mandrel and enters the space between the mandrel and the ends of the several pins *b*. The sleeve C slides upon the mandrel and is provided opposite the tapered end with an internal-screw-threaded seat *c*, which screws on a stationary screw D, thus to slide the sleeve C axially of the shaft to force the point *c'* of such sleeve into the space between the mandrel A and the inner ends of the arms *b*, thus to force the pins outward to engage the inside of the pipe. The inner ends of the arms are preferably beveled to fit the taper of the sleeve C. The sleeve is provided with holes *c''* to receive a handle E, by which the sleeve can be turned to screw it on and off the screw D to thereby slide the sleeve C along the shaft. F indicates springs for drawing the pins *b* inward away from the pipe G when the tapering sleeve is withdrawn. By this resilient means the pins are simulta-

neously withdrawn from contact with the inside of the pipe whenever the sleeve C is removed to allow the pins to move inward toward the mandrel.

5 The mandrel A is mounted in bearings H H' at one end and projects from the bearings at the other end, and the two heads are mounted upon the free end of said mandrel.

10 I I' indicate cutters which are adapted to be adjusted to trim the end of the pipe G when the same is in place on the heads.

J indicates a pivoted carriage or head-block provided with an adjustable center K. L indicates a stop for the carriage to hold the same in position with said center K set coaxial with the shaft or mandrel A. This stop consists of a bolt, and a nut l is screwed upon the bolt to hold the block or carriage in fixed position. The centering-point K screws through the head j of the block J to enter the seat a in the mandrel to steady the end thereof in the ordinary way.

N O indicate a cog-wheel and pinion for driving the shaft A.

25 P indicates a belt-pulley for driving the shaft Q, which drives the pinion O.

R indicates the pivot upon which the head-block or carriage J is pivoted.

30 Each of the heads is provided with means for forcing the arms outward.

Various mechanical devices may be used for forcing the arms outward without departing from my invention, but I at present deem the means herein shown to be the best for this purpose.

35 In practical operation the workman will swing the carriage j away from the mandrel, place the pipe on the heads and then expand the heads, swing the carriage j back into the position shown in Fig. 2, and clamp it by screwing the nut l down. Then the mandrel will be rotated and the cutting proceeded with at both ends simultaneously by means of the cutters I and I'. With the machine above described the operation of truing and beveling

the ends to the pipes may be accomplished with great rapidity.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A pipe-dressing machine comprising a mandrel, having one end free and provided with a center seat, expansible heads fixed to the mandrel, means for expanding said heads, a stationary cutter for cutting one end of the pipe when the same is held by said head, a swinging carriage furnished with a center to enter said center seat and means for clamping the carriage in place with said center in said center seat; a cutter on the carriage for cutting the other end of the pipe when the center is in said seat, and means for rotating the mandrel.

2. A pipe-dressing machine, comprising a mandrel having a center seat in the ends, a movable tail-stock having a center for said center seat, a cutter mounted on said tail-stock, and means for clamping the tail-stock in place with the said center in said seat.

3. A pipe-dressing machine comprising a mandrel mounted in bearings at one end and projecting from the bearings at the other end; means for rotating the mandrel; two heads mounted upon the free end of said mandrel and provided with radially-sliding arms; resilient means for retracting said arms; means for simultaneously forcing said arms outward; a pivoted carriage provided with an adjustable center; a stop for said carriage to hold the same in position with said center coaxial with the shaft; and means for clamping the carriage in position with the center axial of the shaft.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, California, this 22d day of September, 1899.

OTTO QUANDT.

Witnesses:

JAMES R. TOWNSEND,
FRANCIS M. TOWNSEND.