

E. M. BUCKIUS.
 REAMING ATTACHMENT FOR PIPE CUTTING MACHINES.
 APPLICATION FILED JULY 14, 1908.

922,082.

Patented May 18, 1909.

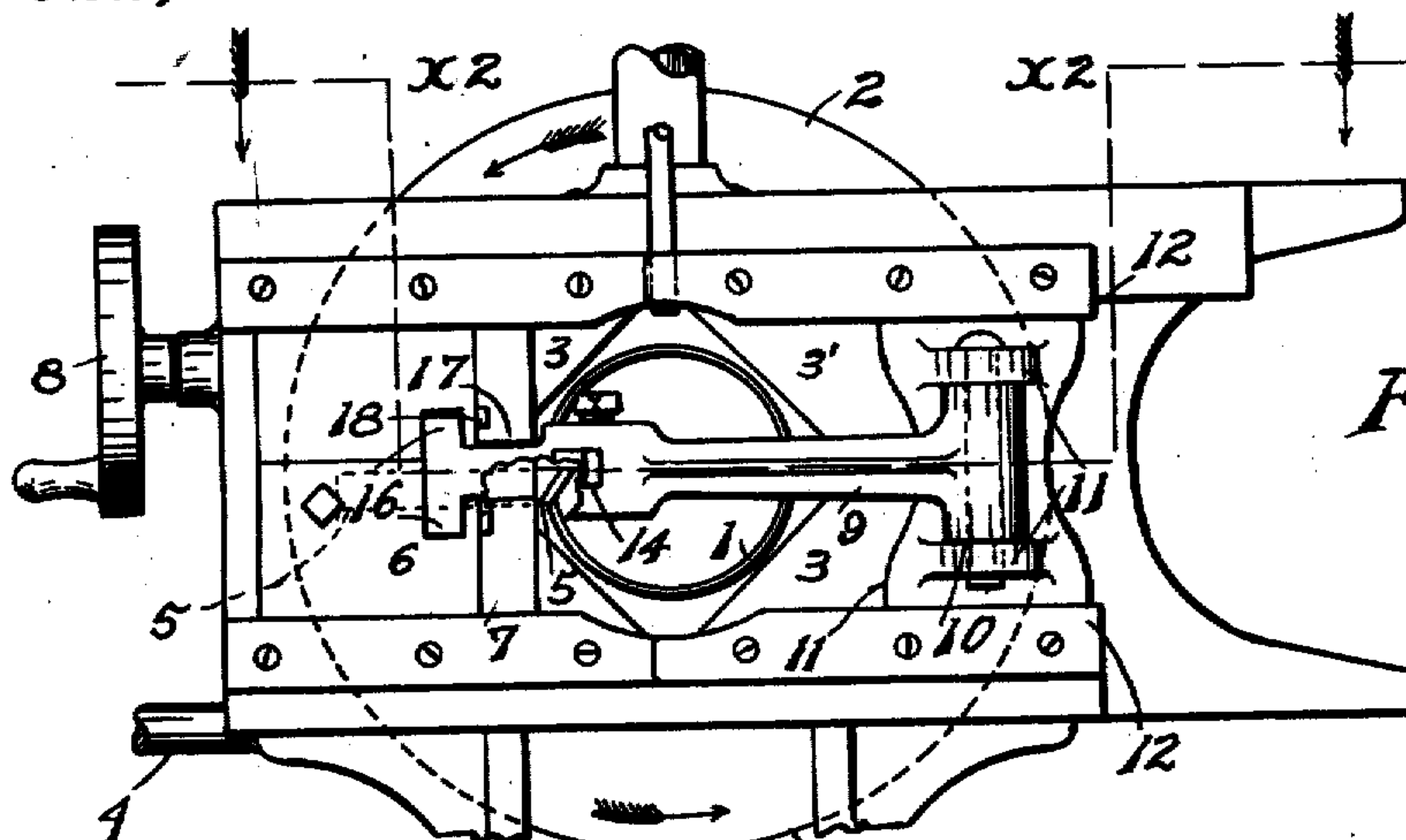


Fig. 1.

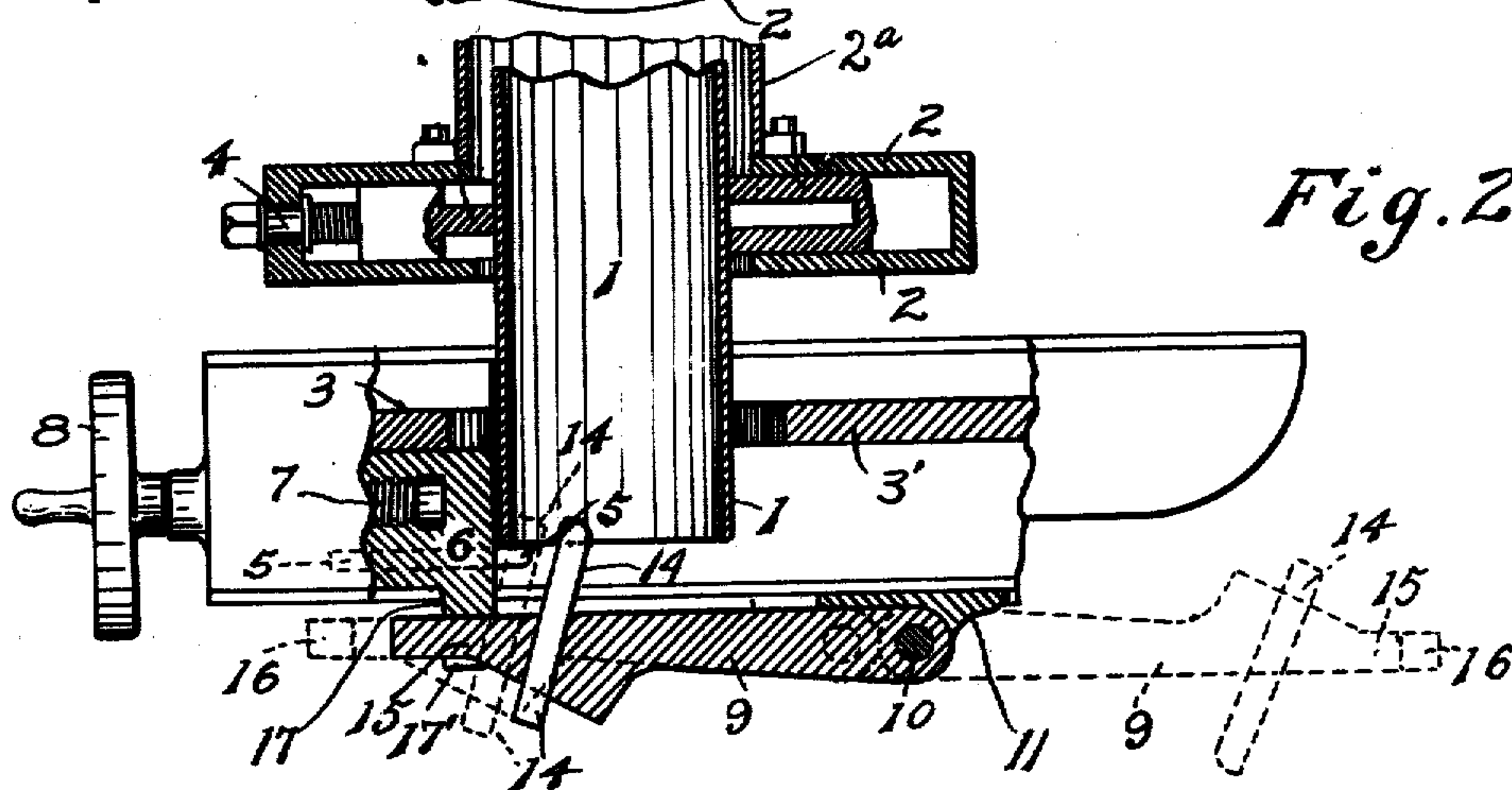


Fig. 2.

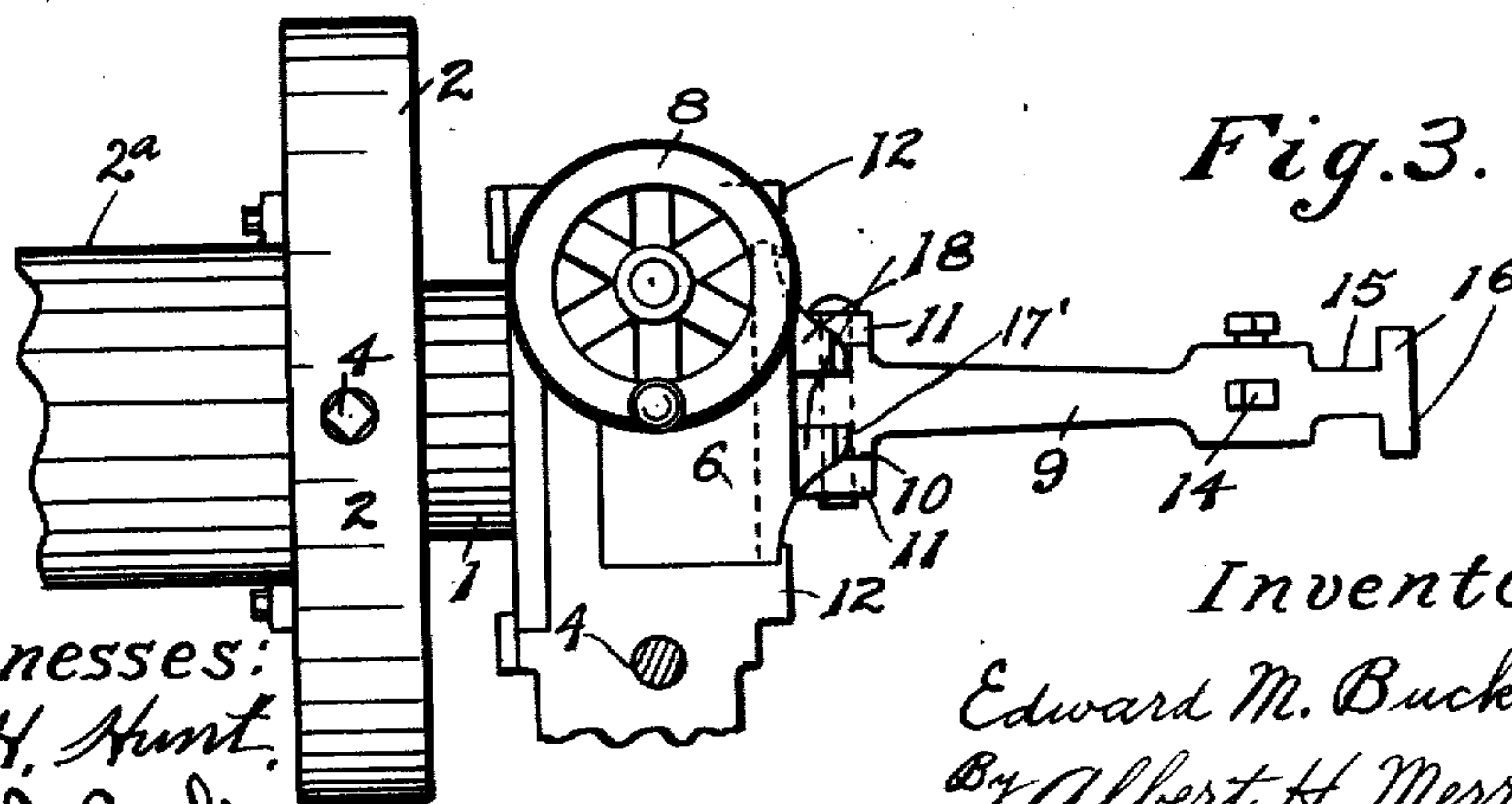


Fig. 3.

Witnesses:
 H. H. Hunt.
 John M. York.

Inventor:
 Edward M. Buckius
 By Albert H. Merrill
 His atty.

UNITED STATES PATENT OFFICE.

EDWARD M. BUCKIUS, OF LOS ANGELES, CALIFORNIA.

REAMING ATTACHMENT FOR PIPE-CUTTING MACHINES.

No. 922,082.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed July 14, 1908. Serial No. 443,546.

To all whom it may concern:

Be it known that I, EDWARD M. BUCKIUS, a citizen of the United States, residing at Los Angeles, California, have invented a new and useful Reaming Attachment for Pipe-Cutting Machines, of which the following is a specification.

This attachment is intended to take the bur off from the inside of a pipe after the pipe has been cut in two.

An object of the invention is to provide a pipe-reaming attachment which when not in use, may be moved more completely out of the way of the workmen than are similar attachments hitherto known.

Another object of the invention is to provide an improved means for holding the reaming knife firmly and evenly against the inner edge of a pipe during the rotation thereof.

A further object of the invention is to provide an attachment of the character set forth capable of being operated in a more nearly automatic manner than other devices of its class, and capable of embracing pipe of all sizes within the range of the machine to which the invention is attached.

With the above objects in view, the invention consists in the various combinations, sub-combinations and details of construction illustrated in the accompanying drawings and specifically pointed out in the claims.

Referring to the accompanying drawings which illustrate the invention,—Figure 1 is an end elevation of a portion of a pipe-cutting machine provided with the attachment. Fig. 2 is a plan section on line X² of Fig. 1. Fig. 3 is a side elevation looking from left toward the right of Figs. 1 and 2.

The pipe 1 is rotated by any well known means, as for example, a head 2, having a spindle 2^a driven by a belt or other means (not shown). Said pipe may be centered in its movements between stationary jaw 3 and movable jaw 3'. said movable jaw 3' being operated in a well known manner by shaft 4, having means (not shown) for manual rotation. The usual pipe-cutting knife 5 carried by block 6 is reciprocated by screw 7 operated by hand wheel 8.

Referring now to the parts which constitute the reaming attachment, a knife-carrying arm 9 is pivoted at 10 to a member 11, sliding in guiding means 12. Said arm 9 near its free end carries a bur-removing

knife 14. Said arm 9 is provided at its free end with means for coupling on to the knife carrying member 6 when the arm is swung to operative position. For this purpose arm 9 may be provided at its free end with a neck 15 having ears 16 at its outer end. Knife-carrying member 6 may carry a yoke 17 having shoulders 17' adapted to embrace neck 15. Shoulders or lugs 17' are provided with recesses 18 which receive the ears 16 when the arm 9 is swung fully to the operative position and the block 6 then withdrawn. The slots 18 which are best shown in Fig. 3, will, after the operation just described, receive the ears 16 and lock the arm 8 in the operative position against swinging outwardly if the block 6 is withdrawn sufficiently to bring the reaming knife 14 into contact with the inner edge of the adjacent side of the pipe being operated upon, so that the ear 16 cannot then escape from the recess 18.

In operation, after pipe 1, which is rotated by means of head 2 is cut in two by knife 5, arm 9 is swung in to operative position to bring ears 16 to the left of yoke 17,—the position shown in Fig. 1. Then, while the knife 5 carried by block 6 is withdrawn from the pipe in the usual manner, yoke 17, also carried by block 6, engages ears 16 and slides arm 9 longitudinally toward the left thereby drawing knife 14 completely into operative position against the bur on the inner edge of the pipe, said bur being removed by further rotation of the pipe.

It will be seen that the means operated by handwheel 8 simultaneously withdraw the pipe-cutting knife and move the reaming knife bodily to operative position. When the pivoted arm 9 is swung inwardly, the outer side of the inclined reaming knife 14 carried thereby, may be made to strike against the end of cutting knife 5 just before the free end of arm 9 strikes yoke 17. This will slide arm 9 and block 11 to the right, causing ears 16 to enter recesses 18 of the traction means operated by handwheel 8. When the reaming knife is not in use, slidable member 11 may be moved to the right, and arm 9 and knife 14 swung completely out of the way as indicated by dotted lines in Fig. 2.

I claim:

1. The combination, with means for rotating a pipe, of a slidable member, means to support said member and guide the move-

ment thereof, an arm pivotally mounted on said member, a pipe-reaming knife carried by said arm, and means at one side of the pipe being operated upon adapted to couple on to the free end of said arm when in operative position to draw said arm toward that side of the pipe.

2. In combination, means for rotating a pipe, a member adapted to carry a pipe cutting knife, means for moving said member toward and from one side of the pipe, a member on the other side of the pipe adapted to slide toward and from the pipe, guiding means for said slidable member, an arm pivoted to said slidable member, and a pipe-reaming knife carried by said arm, the first named member being adapted to couple on to the free end of said arm.

3. In combination, means for rotating a pipe, a member adapted to carry a pipe cutting knife, means for moving said member toward and from one side of the pipe, a member on the other side of the pipe adapted to slide toward and from the pipe, guiding means for said slidable member, an arm pivoted to said slidable member, and a pipe-reaming knife carried by said arm, said arm being provided with an ear at its free end, and the first named member being provided with a lug adapted to engage outside of

said ear when said arm is in the operative position.

4. The combination, with means for rotating a pipe, of a slidable member, means at one side of the pipe to support said member and guide the movement thereof, an arm pivotally mounted on said member, a pipe-reaming knife carried by said arm, and means at the other side of the pipe for moving said arm longitudinally to bring said reaming-knife into operative position.

5. In pipe cutting and reaming apparatus, a carriage adapted to support a cutting knife, a reaming knife, an independent carriage adapted to support said reaming knife, means for coupling said carriages together, and means operatively connected with the carriage for supporting the cutting knife to simultaneously withdraw the cutting knife and move said reaming knife into operative position.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses at Los Angeles, in the county of Los Angeles and State of California, this ninth day of July 1908.

EDWARD M. BUCKIUS.

Witnesses:

JOHN M. YORK,

ALBERT H. MERRILL.