

914,503.

I. W. NONNEMAN.
ADJUSTABLE DIE STOCK.
APPLICATION FILED MAY 6, 1908.

Patented Mar. 9, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

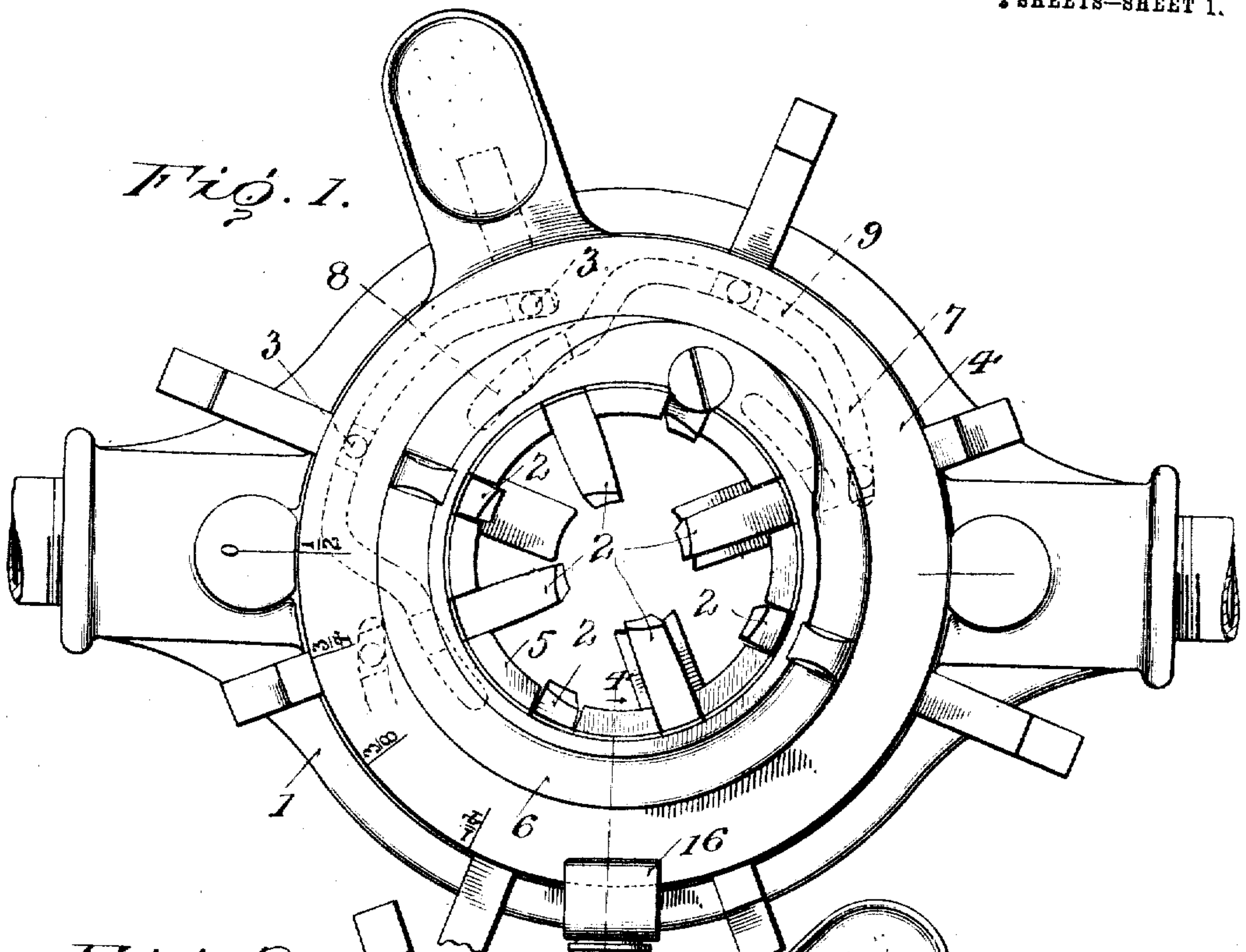
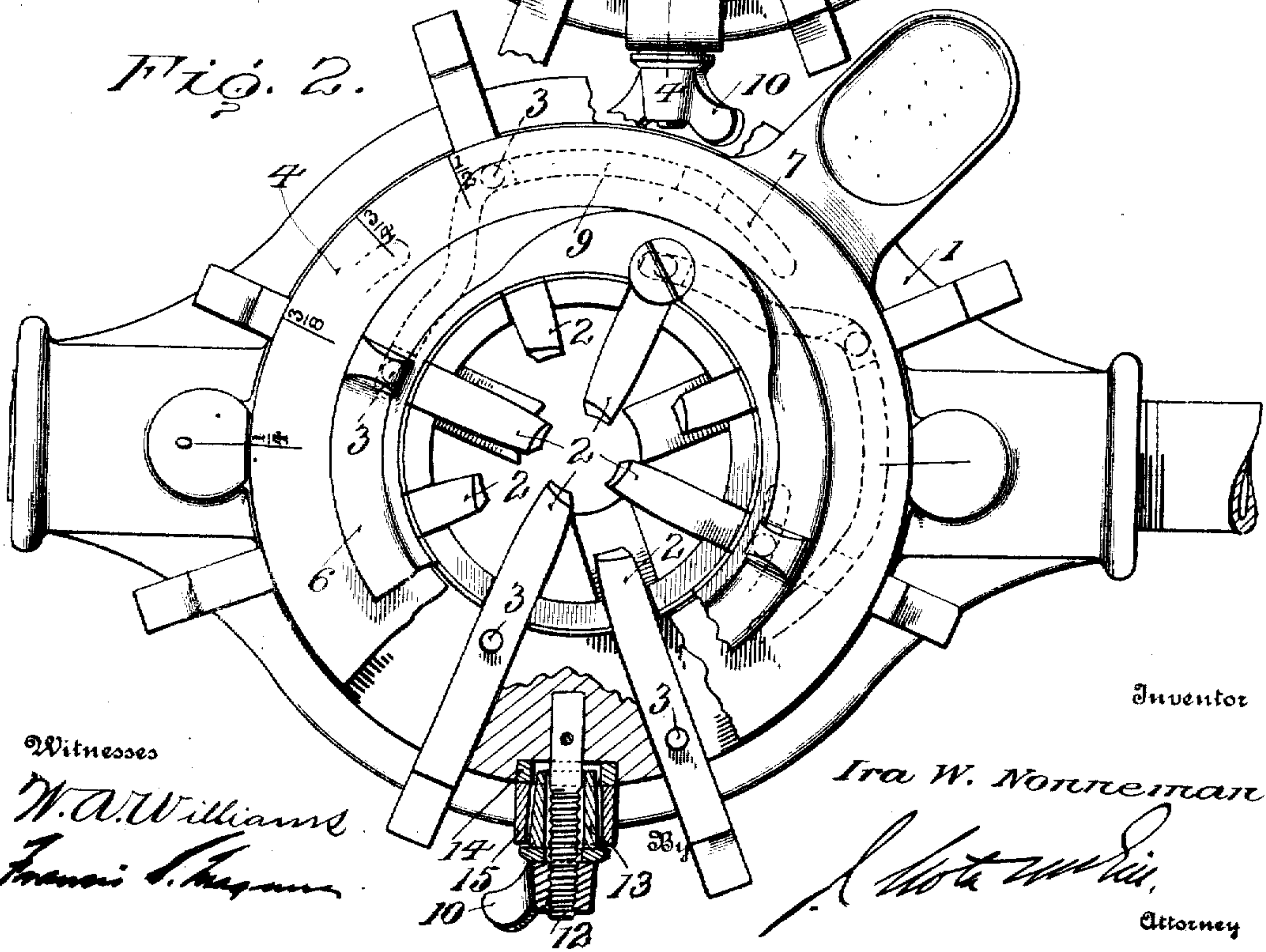


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2

Fig. 3

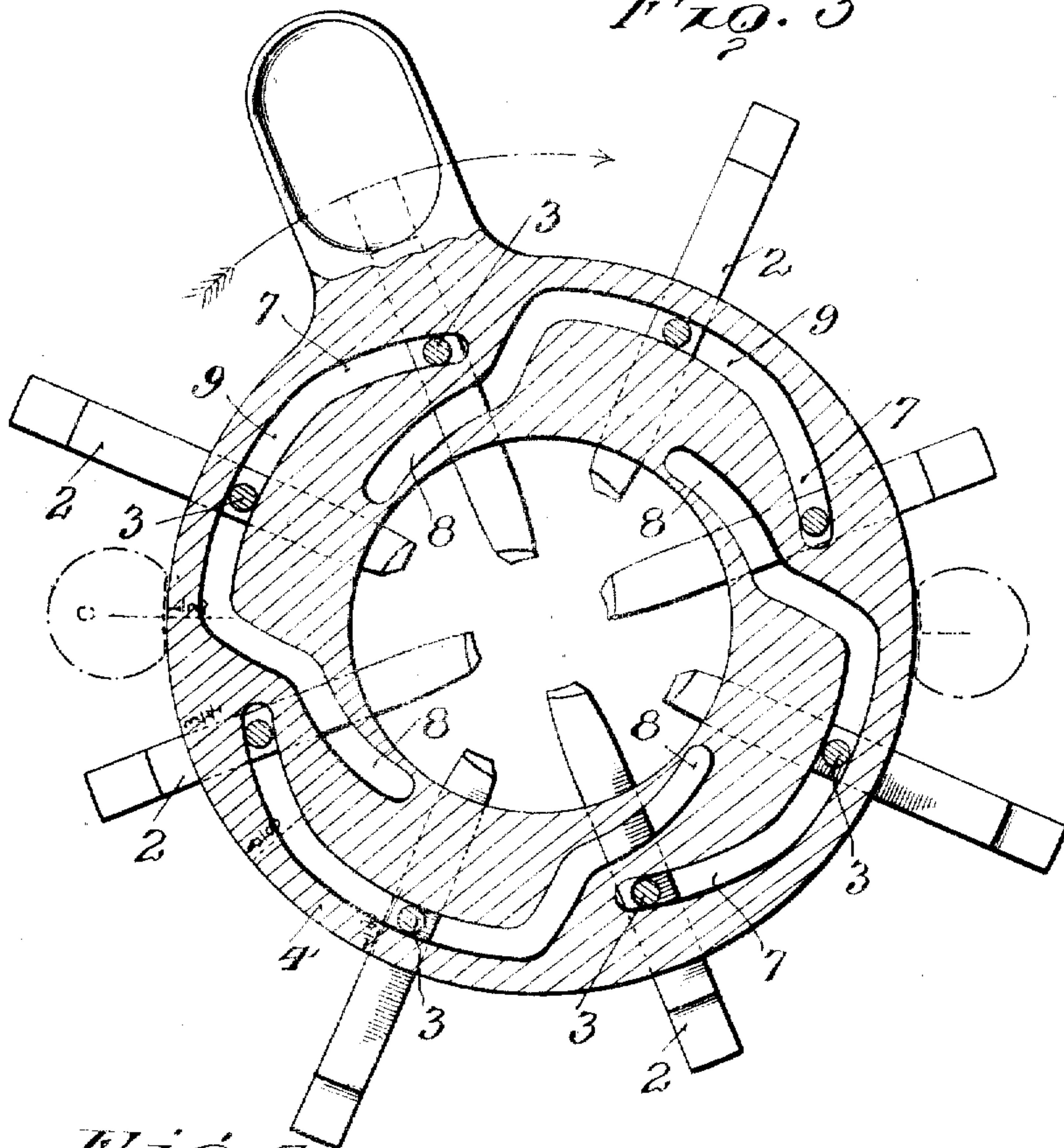


Fig. 4

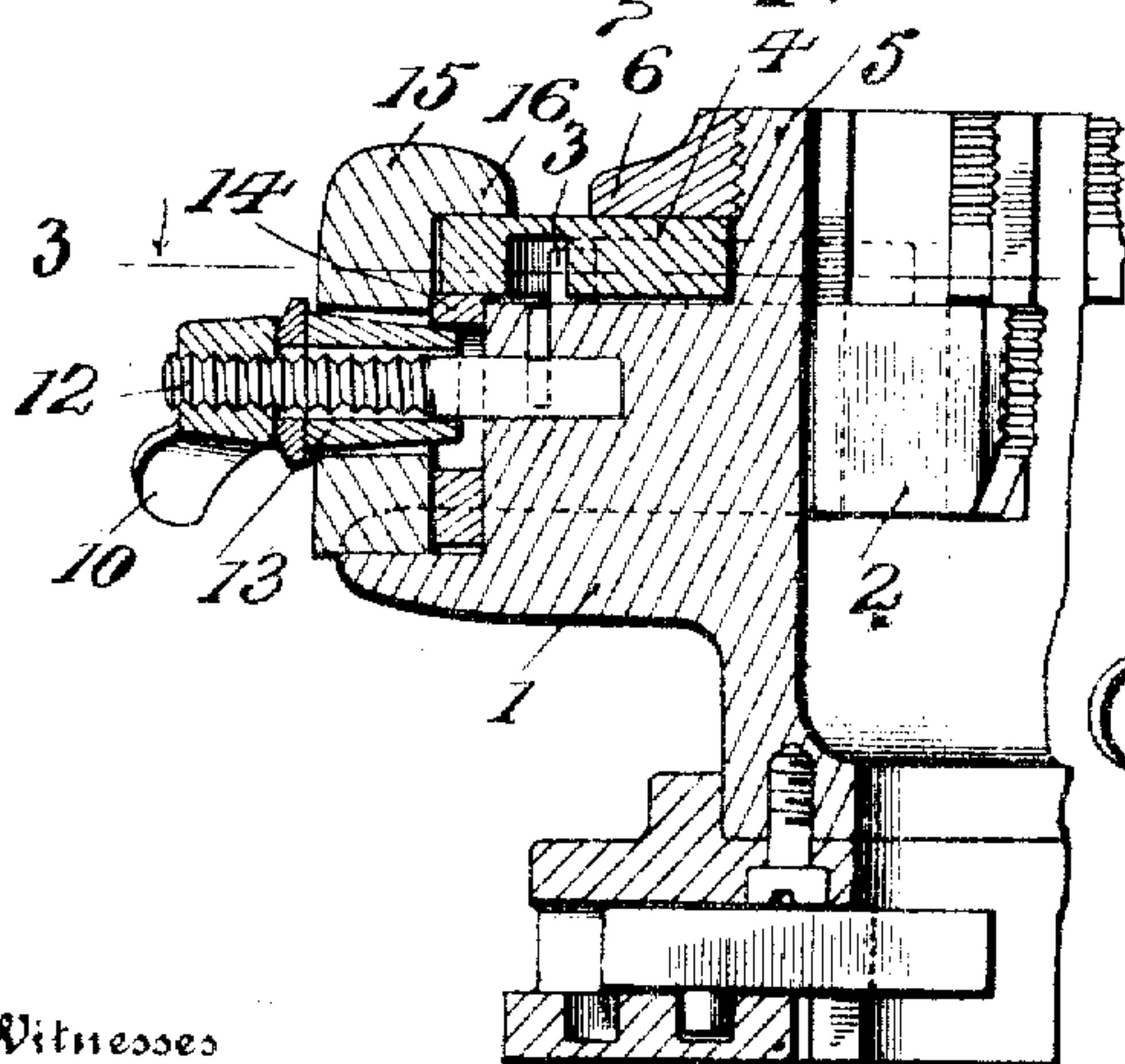
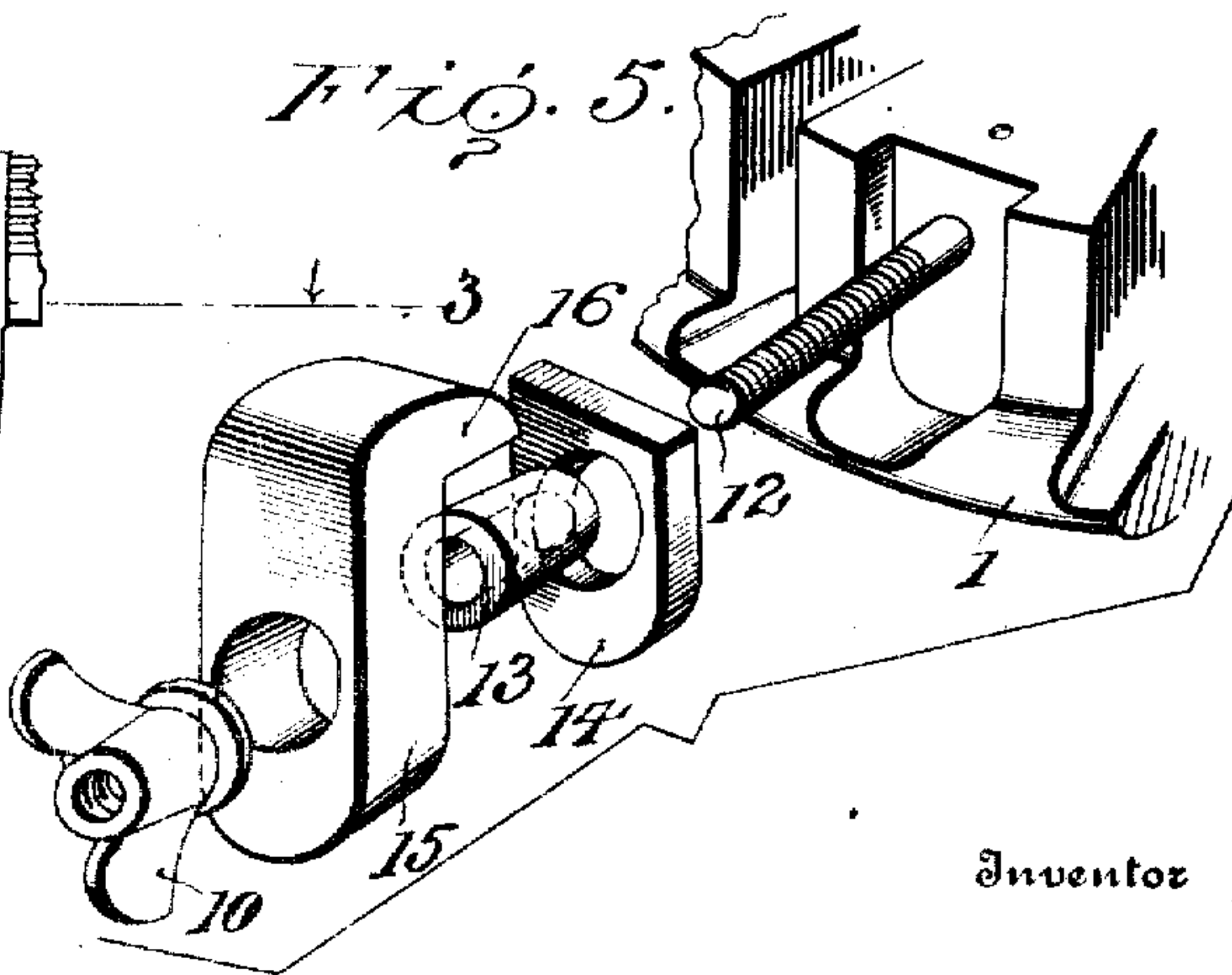


Fig. 5



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UNITED STATES PATENT OFFICE.

IRA W. NONNEMAN, OF WARREN, OHIO, ASSIGNOR TO THE BORDEN COMPANY, OF WARREN, OHIO, A CORPORATION OF OHIO.

ADJUSTABLE DIE-STOCK.

No. 914,503.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed May 6, 1908. Serial No. 431,251.

To all whom it may concern:

Be it known that I, IRA W. NONNEMAN, of Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Adjustable Die-Stocks; 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.

The primary object of this invention is to provide in a die stock having a single rotatable plate for adjusting and holding two sets of chasers, means whereby only a single set of chasers will be acted upon at a time, and both sets of chasers may be successively brought into working position and successively retired by the continuous turning of the plate in one direction.

A further object is to provide improved means for binding and holding the chaser adjusting plate.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view, with parts in dotted lines. Fig. 2 is a similar view showing the adjusting plate in a different position, and with parts broken away. Fig. 3 is a sectional view on line 3—3, Fig. 4, with parts omitted. Fig. 4 is an enlarged sectional view on line 4—4, Fig. 1. Fig. 5 is a detail.

Referring to the drawings, 1 designates the die housing formed with radial guide-ways to accommodate chasers 2, each of which carries an outwardly projecting lug 3. I have shown two sets of chasers, four to a set, each of which is capable of threading two sizes of pipe, or four in all. Hence the necessary change in the pitch of the thread, required by pipes of different sizes, is provided for by the threads of the chasers.

4 designates a rotatable plate by which the sets of chasers are successively acted upon by the rotation of such plate in one direction. This plate fits against the outer face of the housing and turns on a central tubular extension 5 thereof whereon it is held as against displacement by a nut 6 working in a thread of said extension. As shown in Fig. 3 this plate has on its inner face four separate slots, each of which comprises an outer eccentric portion 7, an inner eccentric portion 8, and an intermediate concentric

portion 9 connecting the two eccentric portions. The latter form the actuating agencies for the respective sets of chasers, and hence are struck from centers different distances from the axis of the plate. When the lugs of the chasers of either set are in engagement with their respective eccentrics, the lugs of the chasers of the other set are in the concentric portion 9, thereby enabling the plate to adjust one set of chasers without moving the other set.

In hand tools one set of chasers is capable of cutting one-fourth and three-eighth inch pipes, and the other set of cutting one-half and three-fourth inch pipe. By rotating the adjusting plate in one direction, the chasers may be set for cutting four different sizes of pipe, but when either set of chasers is in use the other set is held out of the way and will not be moved by the turning of the plate until the first set is brought into position where it is unacted upon by the turning of the plate in the adjustment of the second set of chasers.

The adjusting plate is locked by a thumb nut 10 on screw rod 12 forcing a cone like or tapered sleeve 13 into the openings of two plates 14 and 15, so that the former, whose opening is eccentric to said rod, will be moved outwardly against the inner face of the adjusting plate and bind the latter against the inwardly turned hooked end 16 of plate 15. The inner plate 14 is located in a correspondingly formed recess in the housing, but its opening, which is approximately elliptical, is not in true alinement with the correspondingly shaped opening of the outer plate 15. Hence the tapered sleeve when the thumb nut is screwed home will force the inner plate outwardly a sufficient distance to make plate 14 bind firmly against the hooked end of plate 15. The screw rod 12 projects laterally from the housing and hence is not in the way when the tool is in use.

I claim as my invention:—

1. In combination with a casing, and two sets of radially movable chasers, a rotatable adjusting plate having two series of eccentric engaging portions, one for each set of chasers, and means carried by said plate for holding either set of chasers inactive and unaffected by the movements of said plate while the other set is in active relation to its respective series of engaging portions.

2. In combination with a casing, and two sets of radially-movable chasers, an adjusting plate rotatable on said casing and having two series of eccentric engaging portions for said sets of chasers, and also having intermediate concentric engaging portions, each series of eccentric engaging portions being struck from centers different distances from the axis of said plate, one set of chasers being held by said concentric portions when the other set is engaged by its respective eccentric portions.

3. In a die stock, a housing, a series of chasers, an adjusting plate for the latter, and means for locking said adjusting plate, said means comprising two clamping members located at right angles to such plate, one for engaging the inner face of the latter and the other for engaging the outer face thereof, and adjustable means mounted on the housing for causing the inner member to bind the adjusting plate against the outer member.

4. In a die stock, a housing, a series of chasers, an adjusting plate for the latter, and means for locking said adjusting plate, such means comprising two clamping plates having each an enlarged opening, a rod pro-

jecting from the housing through said openings, a wedging sleeve on said rod for engaging one of said plates for forcing it outwardly against the inner face of said adjusting plate, the other of said plates having an outer hooked end against which the adjusting plate is designed to be forced.

5. The combination with a housing, chasers therein, and a chaser-adjusting plate, of a screw rod projecting from said housing, a clamping plate fitted in a recess in said housing and having an opening eccentric to said screw rod, a second clamping member also having an opening for said screw rod and hooked at its outer end, a tapered sleeve fitted on said screw rod for forcing said inner clamping plate against said adjusting plate and the latter against said hooked end, and a thumb nut for engaging said sleeve.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

IRA W. NONNEMAN.

Witnesses:

E. G. MURRAY,
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