

No. 754,974.

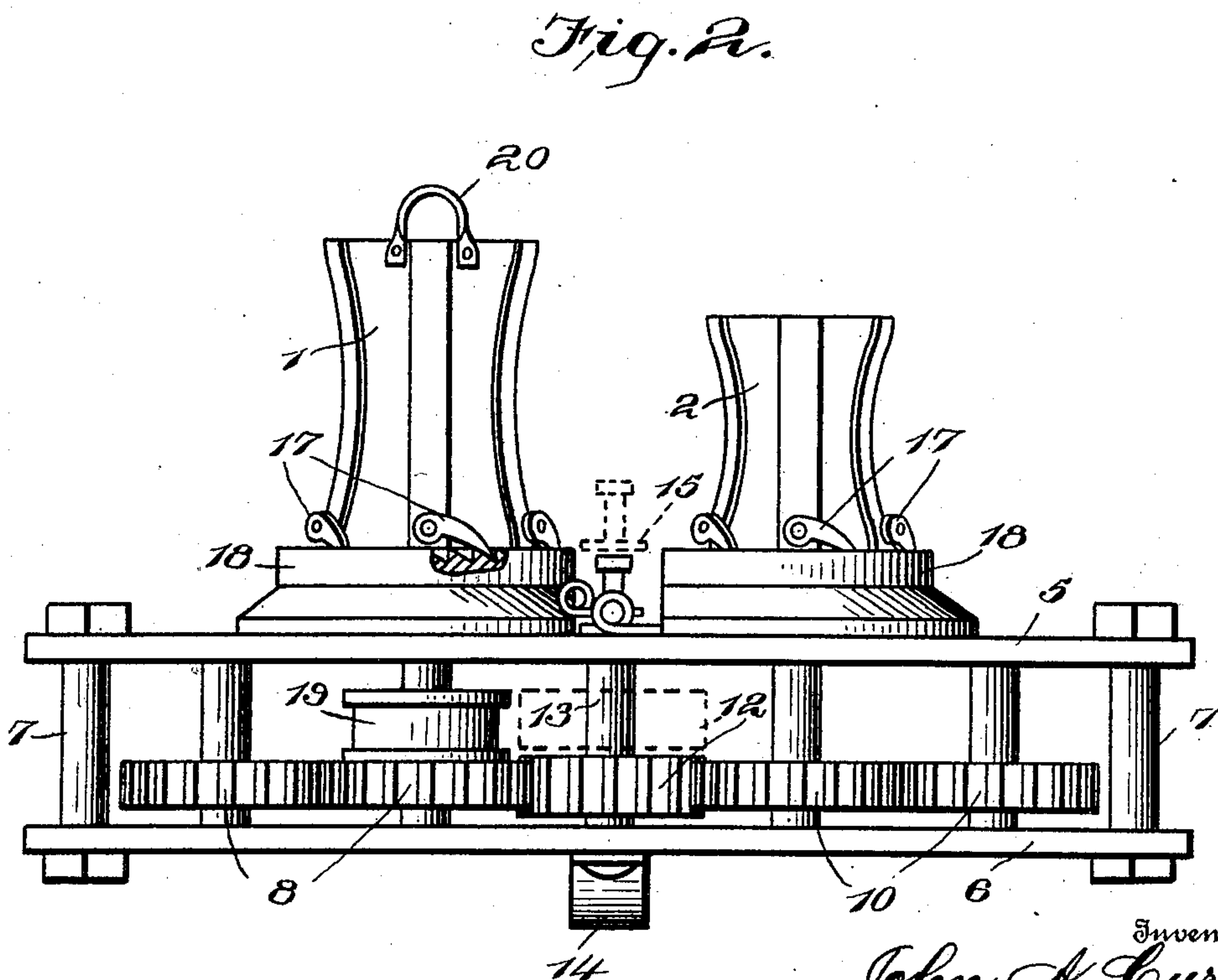
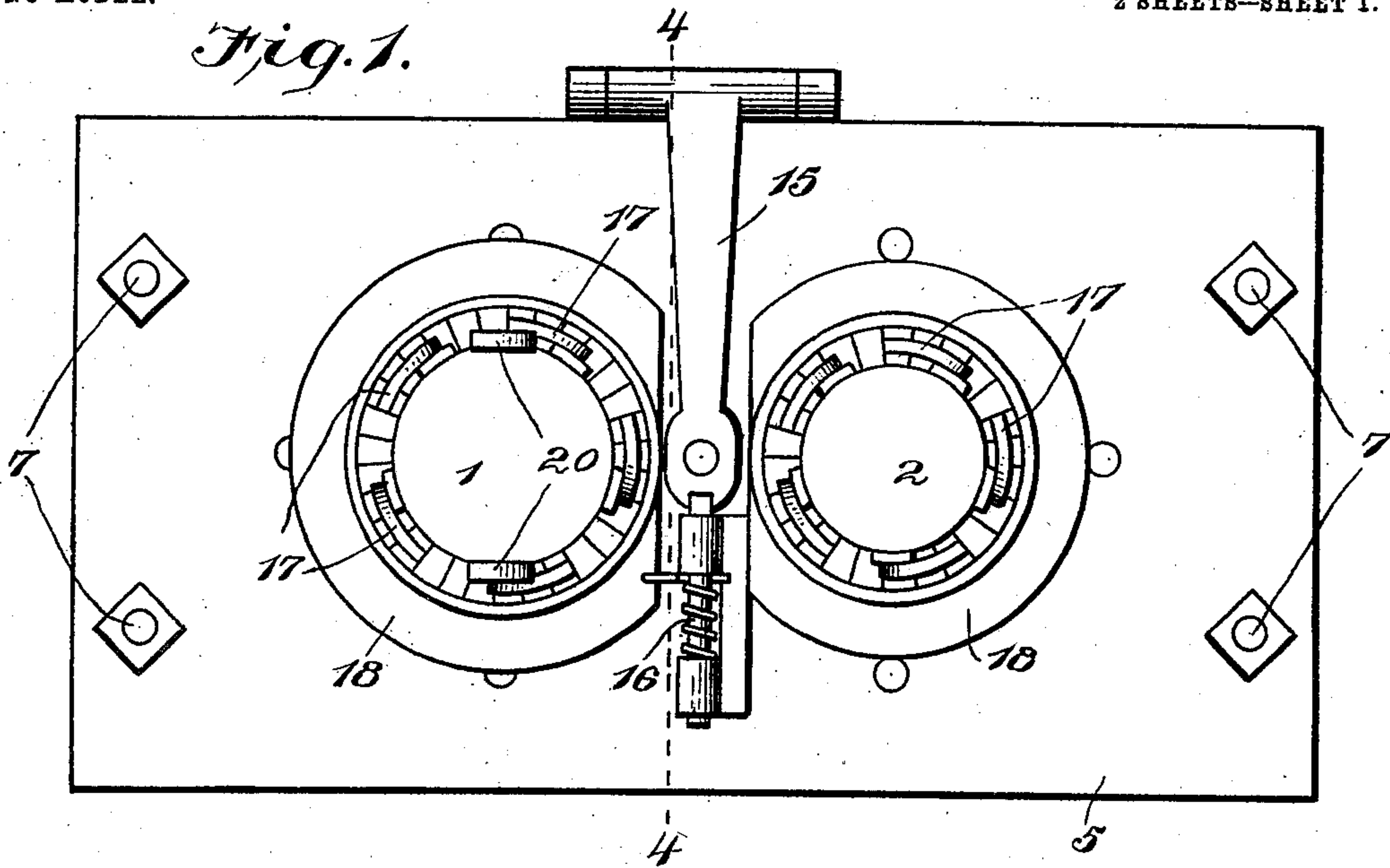
PATENTED MAR. 22, 1904.

J. A. CURRY.  
DOUBLE OR COMPOUND CAPSTAN.

APPLICATION FILED OCT. 2, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
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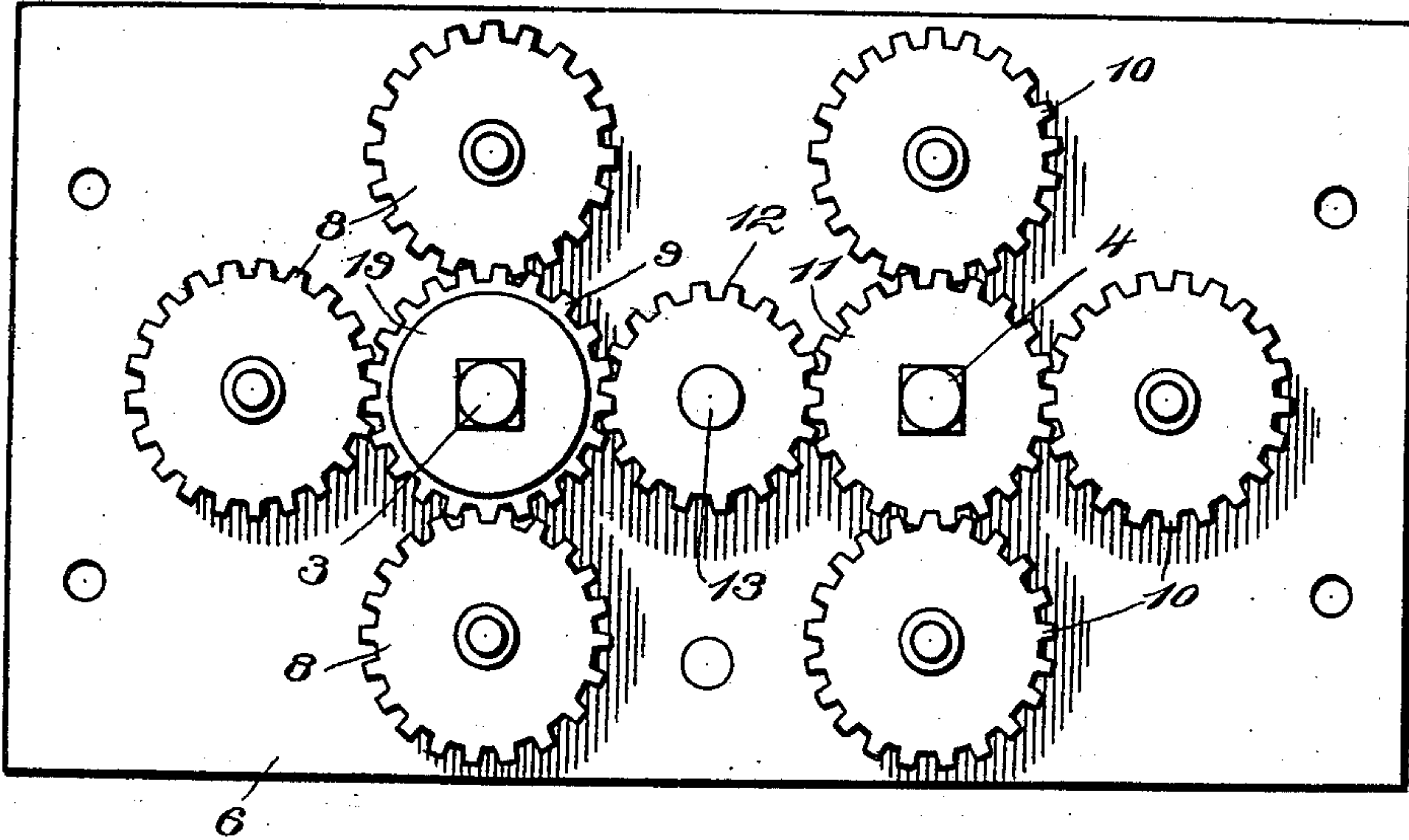
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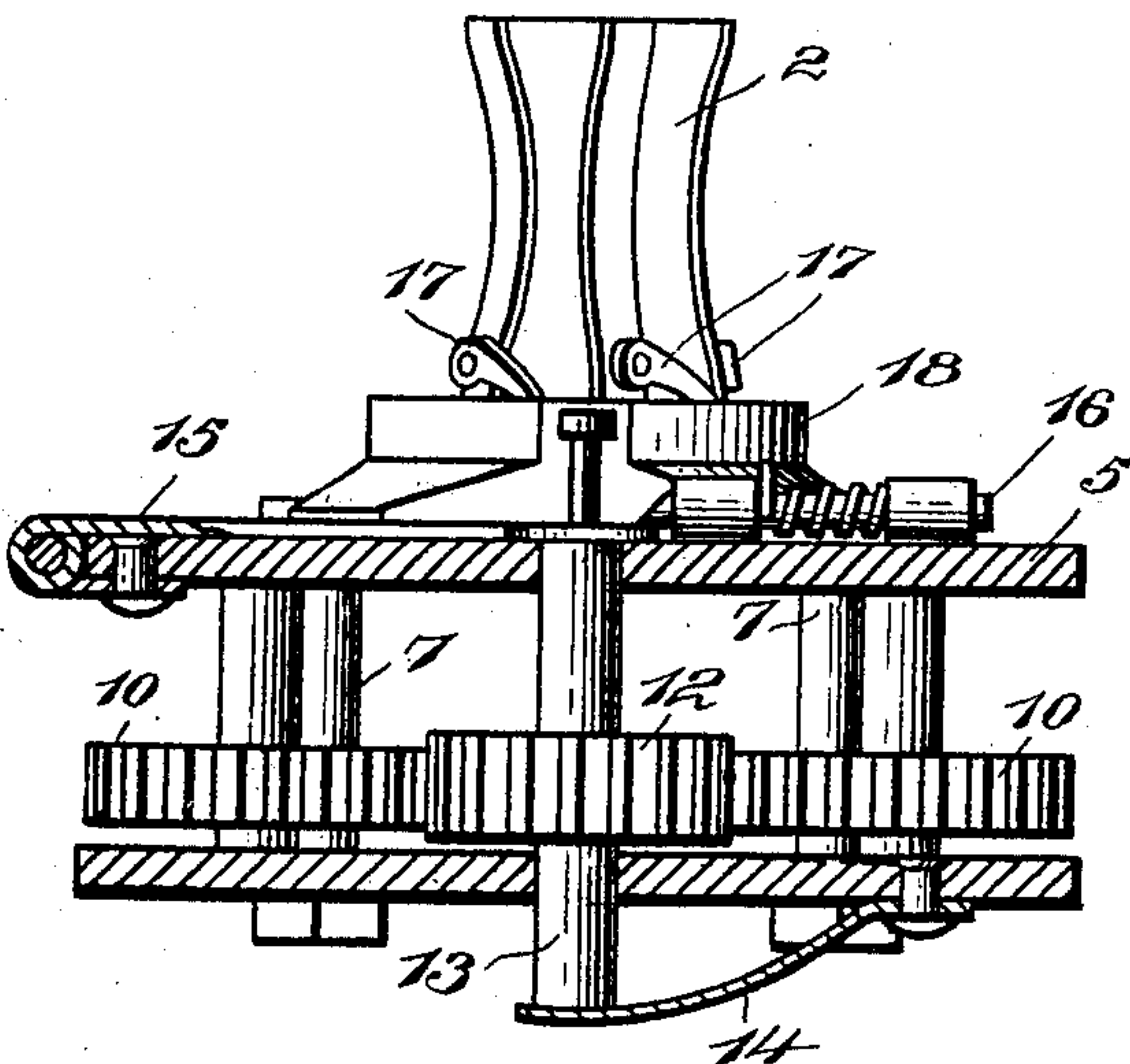
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2 SHEETS—SHEET 2.

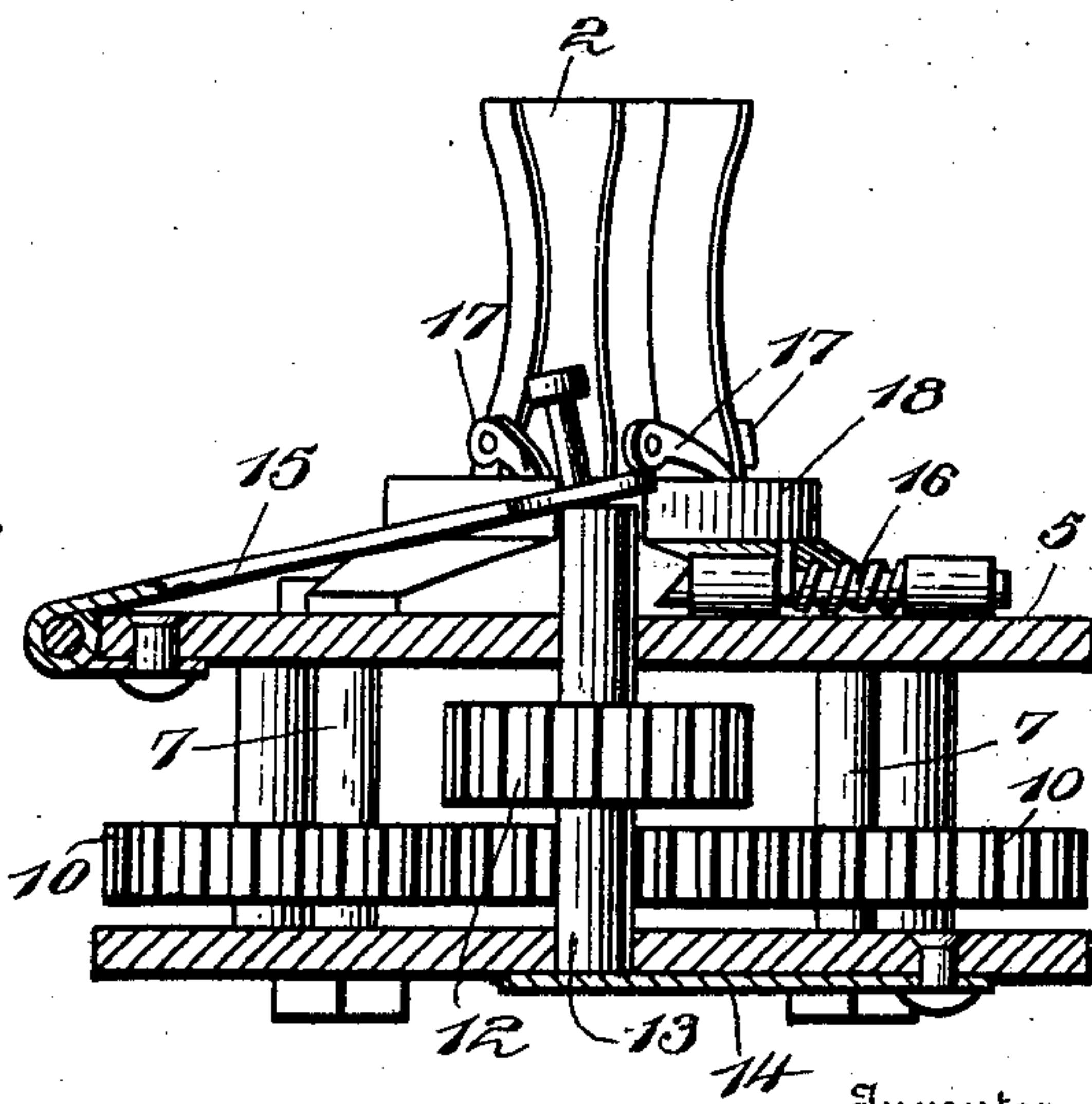
*Fig 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

JOHN A. CURRY, OF KEYWEST, FLORIDA.

## DOUBLE OR COMPOUND CAPSTAN.

SPECIFICATION forming part of Letters Patent No. 754,974, dated March 22, 1904.

Application filed October 2, 1903. Serial No. 175,532. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. CURRY, a citizen of the United States, residing at Keywest, in the county of Monroe and State of Florida, have invented certain new and useful Improvements in Double or Compound Capstans; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to capstans for ships, &c., and has for its object to provide a device of this class which embodies a double or compound capstan.

A further object of my invention is to provide a double or compound capstan so located and arranged that they may be operated simultaneously or independently by power or in any like manner by hand or horse.

A further object of my invention is to provide a double or compound capstan of great strength and power, so arranged that the strain upon the capstan-spindles is almost entirely removed.

With all these objects in view my invention consists in the arrangement of my double or compound capstan.

My invention also consists in the means for connecting and disconnecting the capstans and also in certain other novel features of construction of parts, which will be first fully described, and afterward specifically pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a plan view of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan of the mechanism with the upper plate and capstans removed. Fig. 4 is a sectional view taken on line 4 4 of Fig. 1, showing capstans connected. Fig. 5 is a like view showing capstans disconnected.

Like numerals of reference indicate the same parts throughout the several figures, in which—

1 and 2 indicate the capstans mounted upon the spindles 3 and 4 and rotating therewith.

5 indicates the upper plate therefor, and 6 the lower, said plates being securely bolted together by bolts 7, and between said plates are a series of three cogs 8, which mesh with a cog 9, carried on the capstan-spindle 3. A series of three cogs 10, identical with cogs 8, are arranged, as shown, to mesh with a cog 11, carried on the capstan-spindle 4, the spindles of all of said series of cogs being journaled in the upper and lower plates 5 and 6.

Located intermediate the capstan-cogs 9 and 11 is a cog 12, carried on a vertically-movable spindle 13, and I arrange a spring 14, Figs. 4 and 5, bearing against the lower end of said spindle and normally tending to raise said spindle and cog.

Suitably secured to the upper plate 5 is a strap 15, which is adapted to engage the top of spindle 13 and to hold the same against the action of the spring 14, said strap being held in position by a spring-actuated bolt 16, as shown in Figs. 4 and 5.

I provide the capstans with the usual pawls 17 and bases 18, and I locate a belt-pulley 19 on the capstan-spindle 3 to take power from a motor or suitable engine, and I also provide capstan 1 with suitable bails 20 for the reception of a bar when it is desired to operate the capstan manually.

Having thus set forth the several parts of my invention, its operation is as follows: When taking power from a belt on the belt-pulley 19 the spindle 3 is revolved, which turns capstan 1 and the cog 9 on spindle 3, and as said cog revolves it meshes with the series of cogs 8, which take the strain from said capstan-spindle and prevent any tendency of bending or buckling. When it is desired to transmit power to capstan 2, the central cog 12 is lowered into engagement with cog 9 and cog 11 by forcing the strap 15 down upon the top of spindle 13 and in engagement with the spring-actuated bolt 16. The capstan 2 and spindle 4 then take up the motion of capstan 1, and the series of cogs 10 brace and strengthen the said spindle 4, insuring a proper engagement of the cog 11 with the central transmitting-cog 12. When it is desired to operate capstan 1 independently, the strap 15 is released from the spring-bolt 16, which allows the spring 14 to



lift the spindle 13 and carry the cog 12 out of engagement with the capstan-cogs 9 and 11.

Having thus fully described my invention, I do not wish to be understood as limiting myself to the exact construction herein set forth, as various slight changes may be made therein by those skilled in the art which would fall within the limit and scope of my invention, and I consider myself clearly entitled to all such changes and modifications.

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

1. In a double or compound capstan, the combination of a capstan and spindle therefor, a cog carried on said spindle, and a series of cogs adapted to mesh with said cog, a similar capstan and spindle therefor, a cog carried on said spindle, a series of cogs adapted to mesh with said cog, a centrally-located cog and a vertically-movable spindle therefor, said centrally-located cog being adapted to mesh with said cogs on the capstan-spindles, a strap adapted to hold said centrally-located cog in mesh with said cogs on said capstan-spindles, and a spring for raising said centrally-located cog out of engagement with said cogs on said capstan-spindles.

2. In a double or compound capstan, the com-

bination of a capstan and spindle therefor, a cog carried on said spindle, and a series of cogs adapted to mesh with said cog, a similar capstan and spindle therefor, a cog carried on said spindle, and a series of cogs adapted to mesh with said cog, a centrally-located cog adapted to mesh with said cogs on said spindles, and means for throwing said centrally-located cog into and out of engagement with said cogs on said spindles.

3. In a double or compound capstan, the combination of two capstans and spindles therefor, cogs carried on said spindles, a series of cogs adapted to mesh with each of said cogs, and an intermediate cog adapted to transmit the motion of one of said spindles to the other, and means for disconnecting said spindles.

4. In a capstan, the combination of two plates, and a capstan and spindle carried on said plates, a cog carried on said spindle, and a series of cogs adapted to mesh with said cog on said spindle.

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

JOHN <sup>his</sup> × A. CURRY.  
mark

Witnesses:

AUSTIN G. ROBERTS,  
THOS. O. OTTO.