

No. 863,229.

PATENTED AUG. 13, 1907.

G. B. SHIPLEY.
ORE FEEDER.

APPLICATION FILED DEC. 4, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

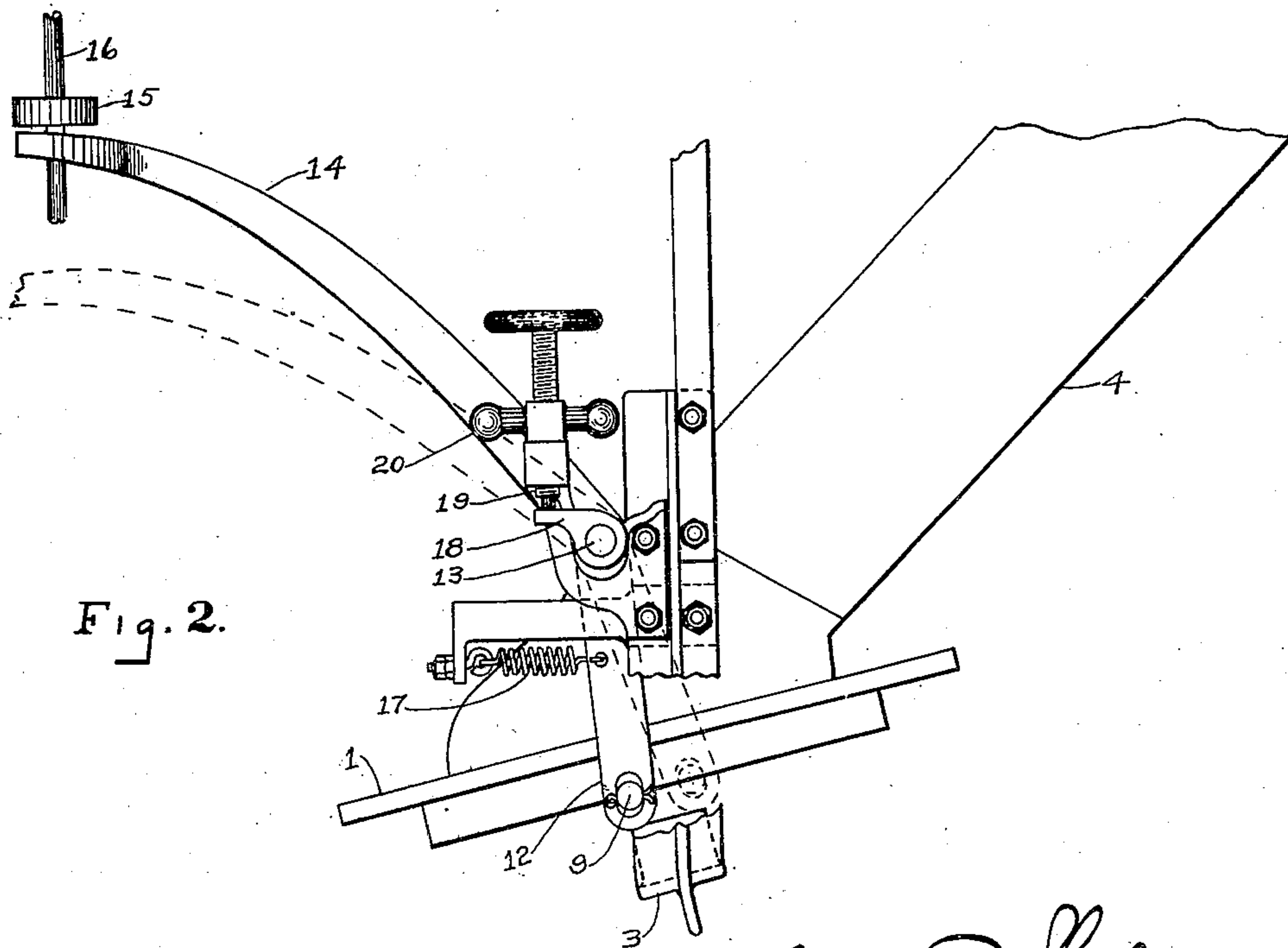
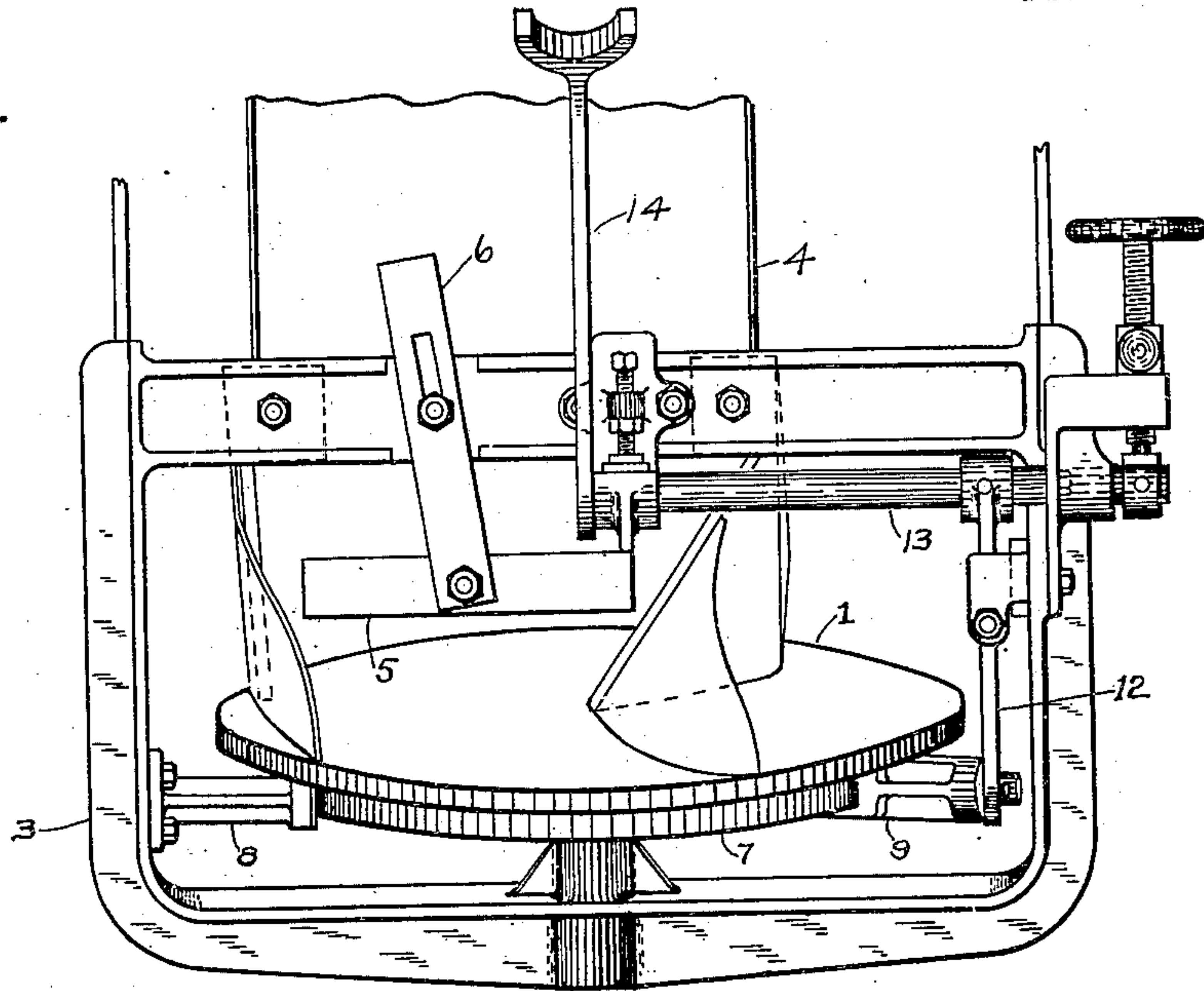


Fig. 2.

WITNESSES:

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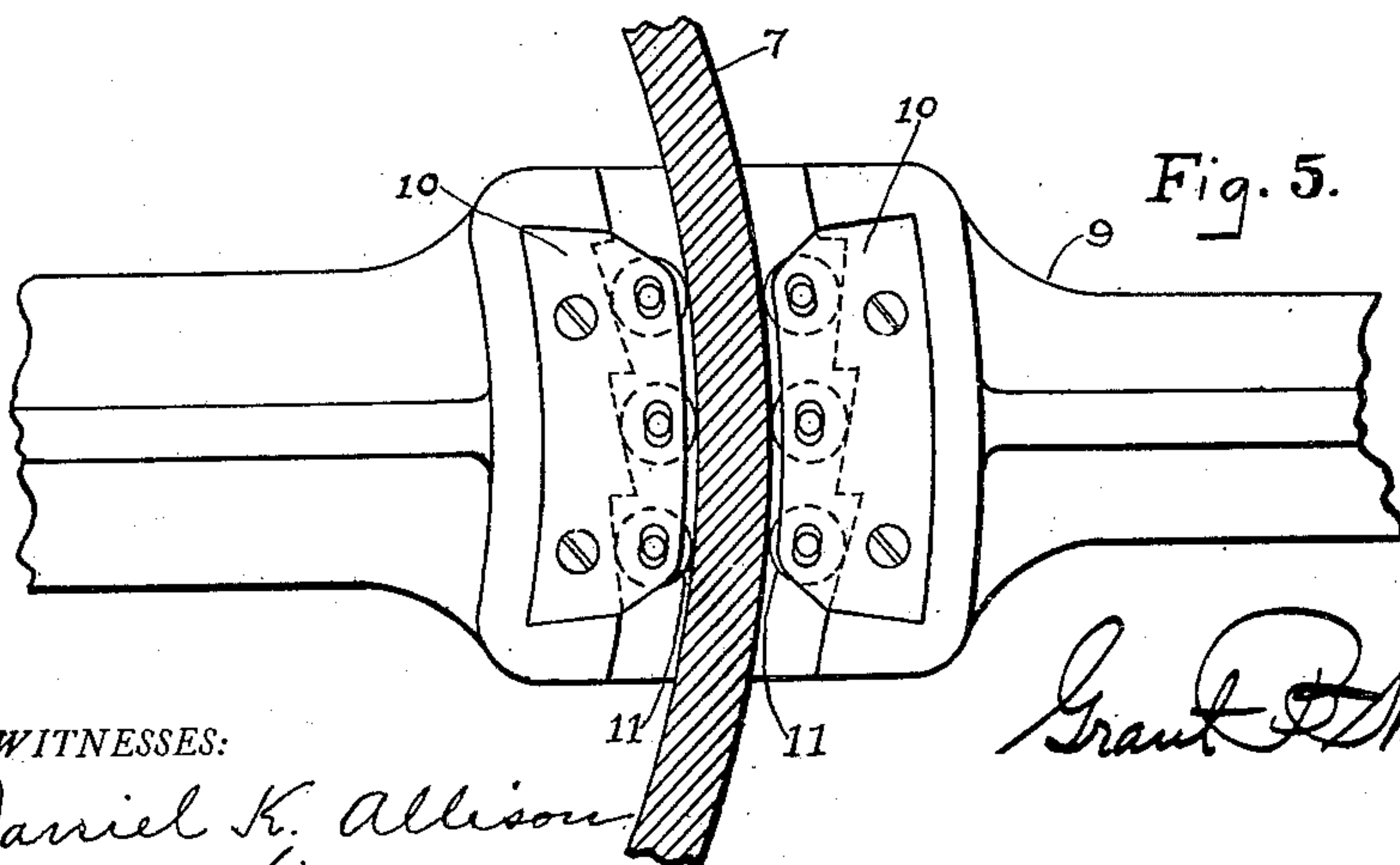
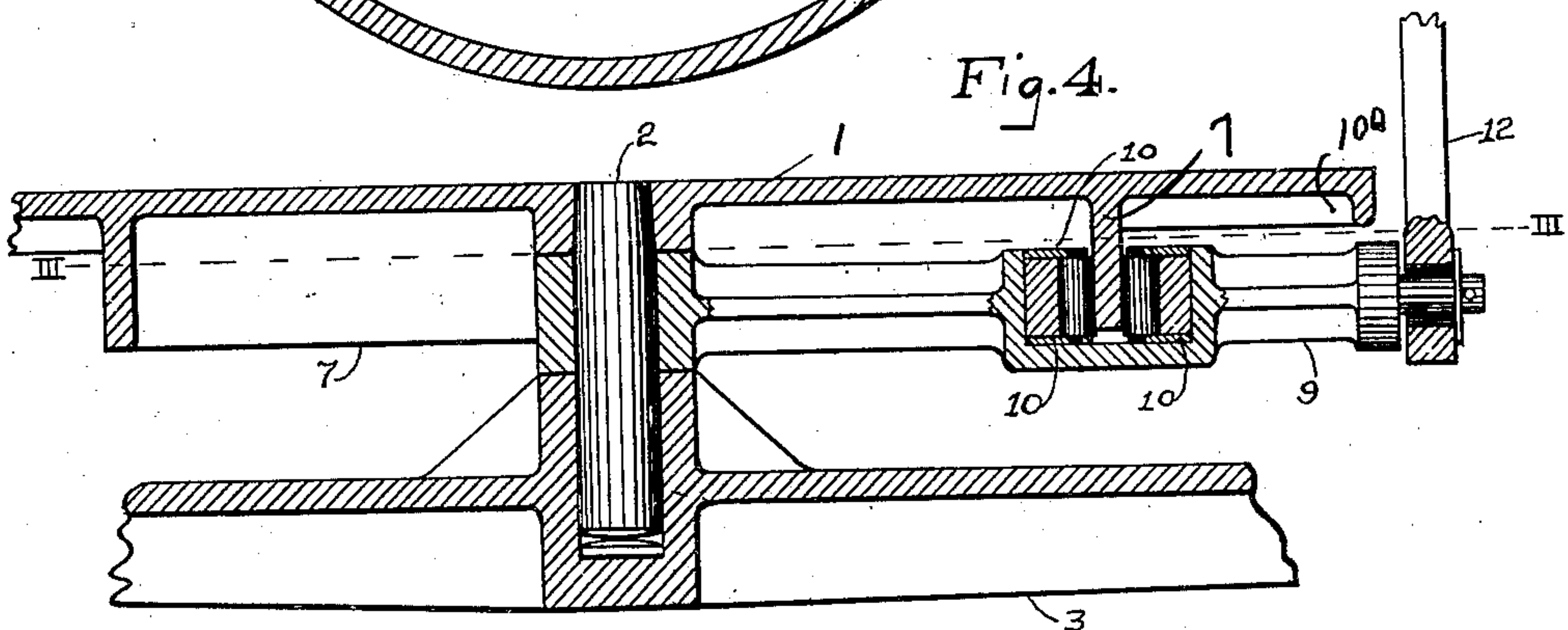
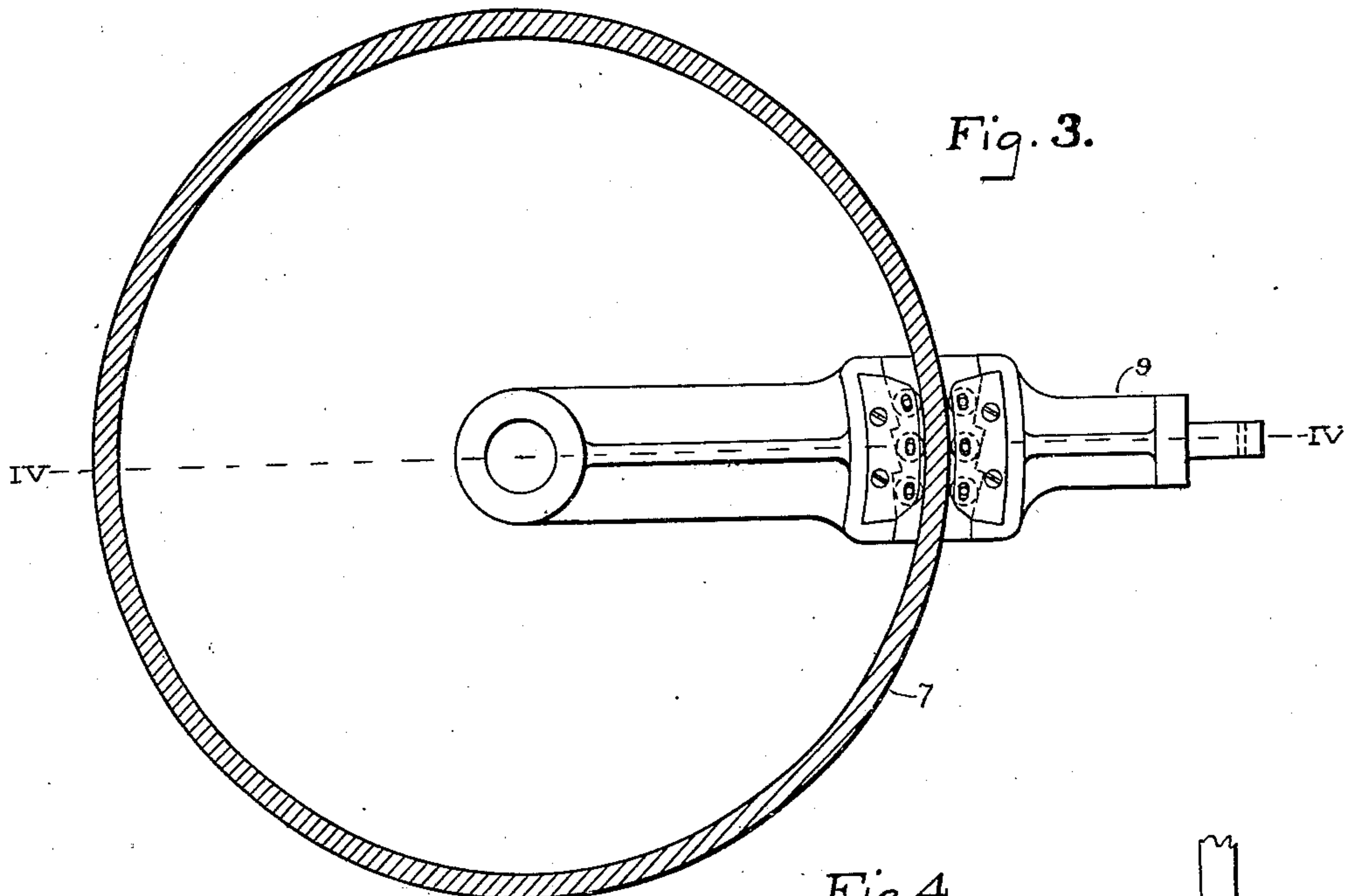
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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GRANT B. SHIPLEY, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO ALLIS-CHALMERS COMPANY,
OF MILWAUKEE, WISCONSIN, A CORPORATION OF NEW JERSEY.

ORE-FEEDER.

No. 863,229.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed December 4, 1905. Serial No. 290,088.

To all whom it may concern:

Be it known that I, GRANT B. SHIPLEY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Ore-Feeders, of which the following is a specification.

This invention relates to certain improvements in driving mechanism, and more particularly to positively regulating the speed of a driven member in relation to its driver, with few elements, reliable in operation.

This invention has utility in operating rotatable members, for instance, ore feed tables used in connection with stamp mills.

Such embodiment of the invention is shown in the drawings, wherein,—

Figure 1 is a front view; and Fig. 2 a side view of an ore feeder; Fig. 3 is a plan on the line III—III of Fig. 4 showing the table engaging device; Fig. 4 is a section on the line IV—IV of Fig. 3; Fig. 5 is a detail on enlarged scale of the engaging or grip device.

The table 1 of the ore feeder is mounted as usual, inclined to its axis on the stem 2. The stem 2 is supported in the frame 3. Feeding the ore down to the table is the inclined chute or hopper 4. Mounted on the frame 3 is the bar 5 adjustably held by the bar 6 to regulate the amount of ore fed to the table. Projecting from the under side of the table 1 is the annular flange 7. Mounted on the frame 3 and frictionally engaging the flange is a brake, damp or retarder 8. Pivotaly mounted on the stem 2 is the arm 9 having attached thereto the plates 10, loosely carrying the rollers 11. The arm 9 is reciprocated or oscillated by the arm 12 having loose connection therewith. The arm 12 is mounted on the rock shaft 13, which rock shaft is carried by the frame 3. Also mounted on the rock shaft 13 is the forked arm 14. The fork of this arm extends below the collar 15 of the stamp stem 16. The arm 9 is normally pulled to release the grip by the spring 17 which is attached to an arm of the frame at one end and to the arm 12 at the other. The amount of rock of the shaft 13 may be adjusted by means of the arm 18 thereon which abuts the adjustable stop or screw 19, which stop is held in its adjusted position by the lock nut 20. The position of the stop regulates the backward limit of the pull of the spring 17.

The table 1 is provided at its periphery with the

depending drip bead 100 and the depending flange 7 is located beneath the table and between the stem 2 and the drip bead 100. By this construction the means for rotating the table are protected from water and grit which, with the ordinary forms of these ore feeders, interfere with the mechanism for rotating the table. As the material fed by these tables is ordinarily wet, and as the table during the entire revolution thereof has fed the material over its entire circumference, it is apparent that at any period in its movement the water and grit which has been retained by the table and carried to the back side and highest point will tend to flow down towards the front and lower side of the table. The drip bead 100 is provided to lead this water and grit to the lower side of the table and keep it from running down on the under face of the table where it could accumulate on flange 7 and interfere with the operation of the table moving grip or ratchet device.

In operation, the stamp stem 16 by its reciprocations carries the collar 15 to push down the arm 14, thereby rocking the shaft 13. This throws the arm 12 and causes the arm 9, carrying the grip device or table engaging means, to move the table. As the stamp stem is lifted, the spring 17 retracts the arm 12 and pulls with it the arm 9 permitting release of the grip from the table flange so that in the next drop of the stamp the table is given a second movement. By the continuation of these actions, the table is rotated to gradually feed the ore coming through the hopper. To prevent over-running of the table or backward movement, a brake or retarder is applied to engage the flange of the table.

What is claimed and it is desired to secure by Letters Patent is:

The combination with a chute, of an inclined rotatable table therebelow, said table being provided adjacent its periphery with a drip bead, means for supporting said table, said table being provided with means located on the under side thereof between said drip bead and said supporting means adapted to be engaged by means for rotating said table.

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

GRANT B. SHIPLEY.

Witnesses:

JOHN DAY, JR.,
GEO. E. KIRK.