

No. 771,137.

PATENTED SEPT. 27, 1904.

H. D. FRERKING.
FEED ROLLERS FOR GRAIN DRILLS.

APPLICATION FILED APR. 7, 1904.

NO MODEL.

Fig. 1.

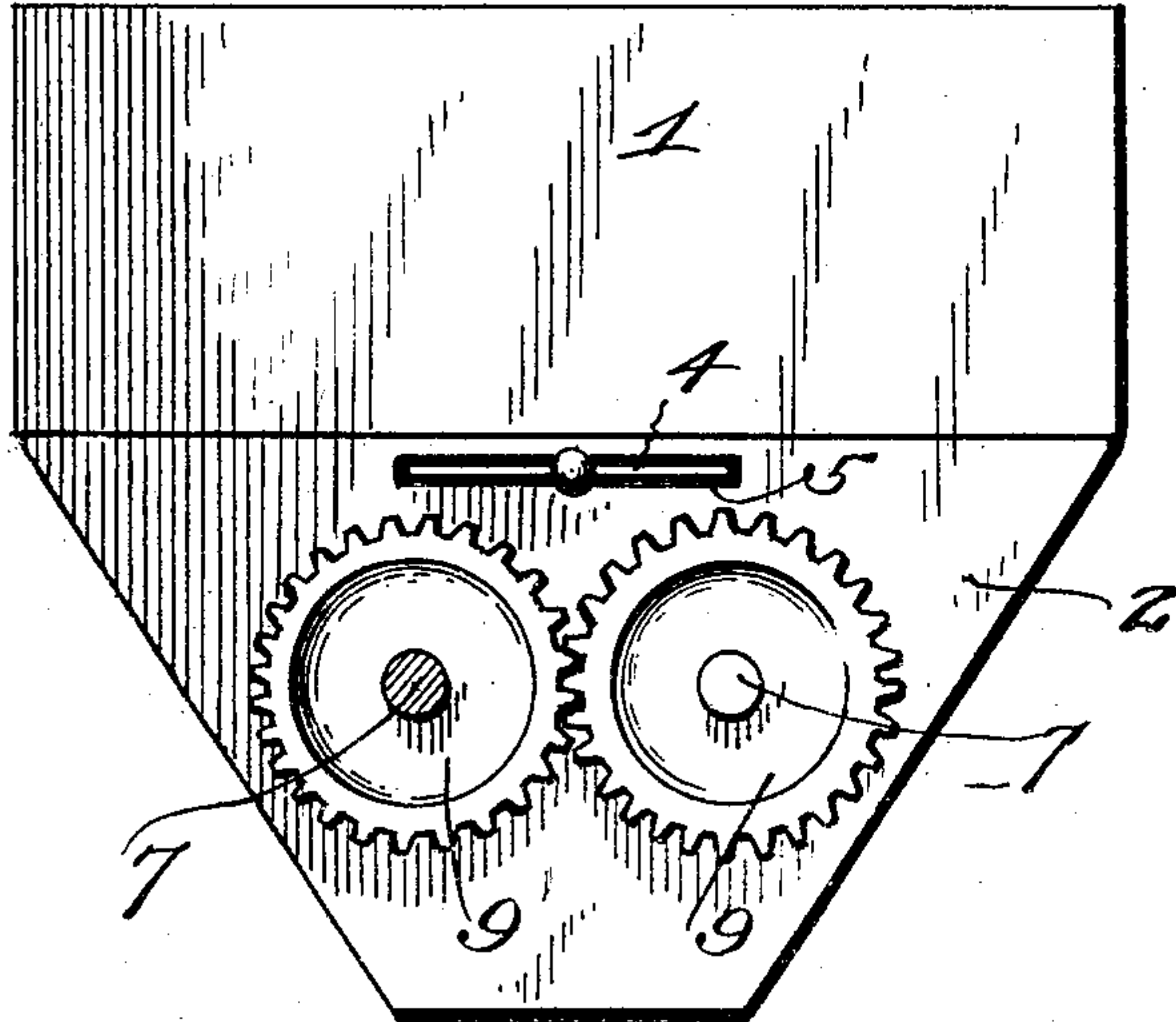


Fig. 2.

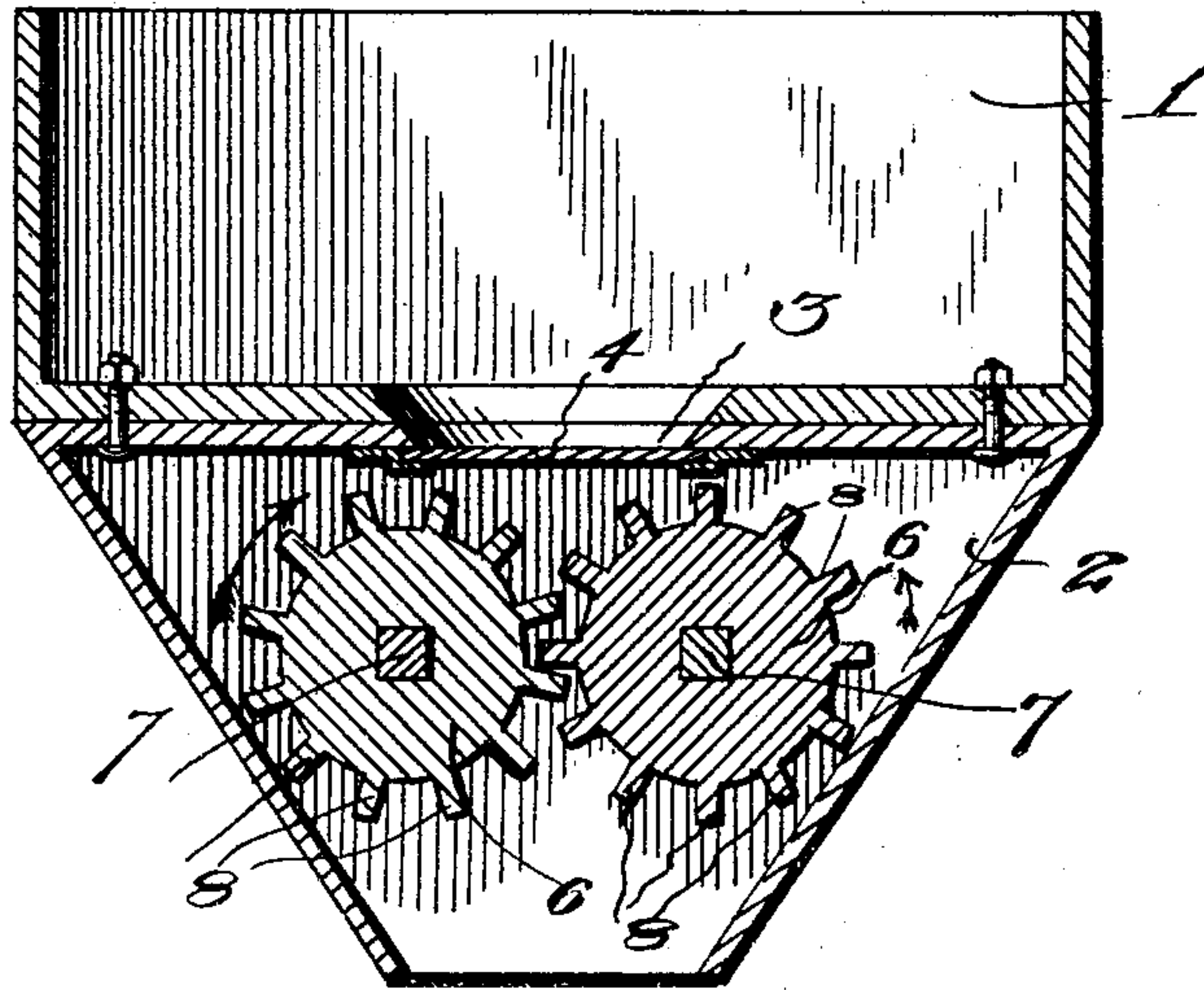
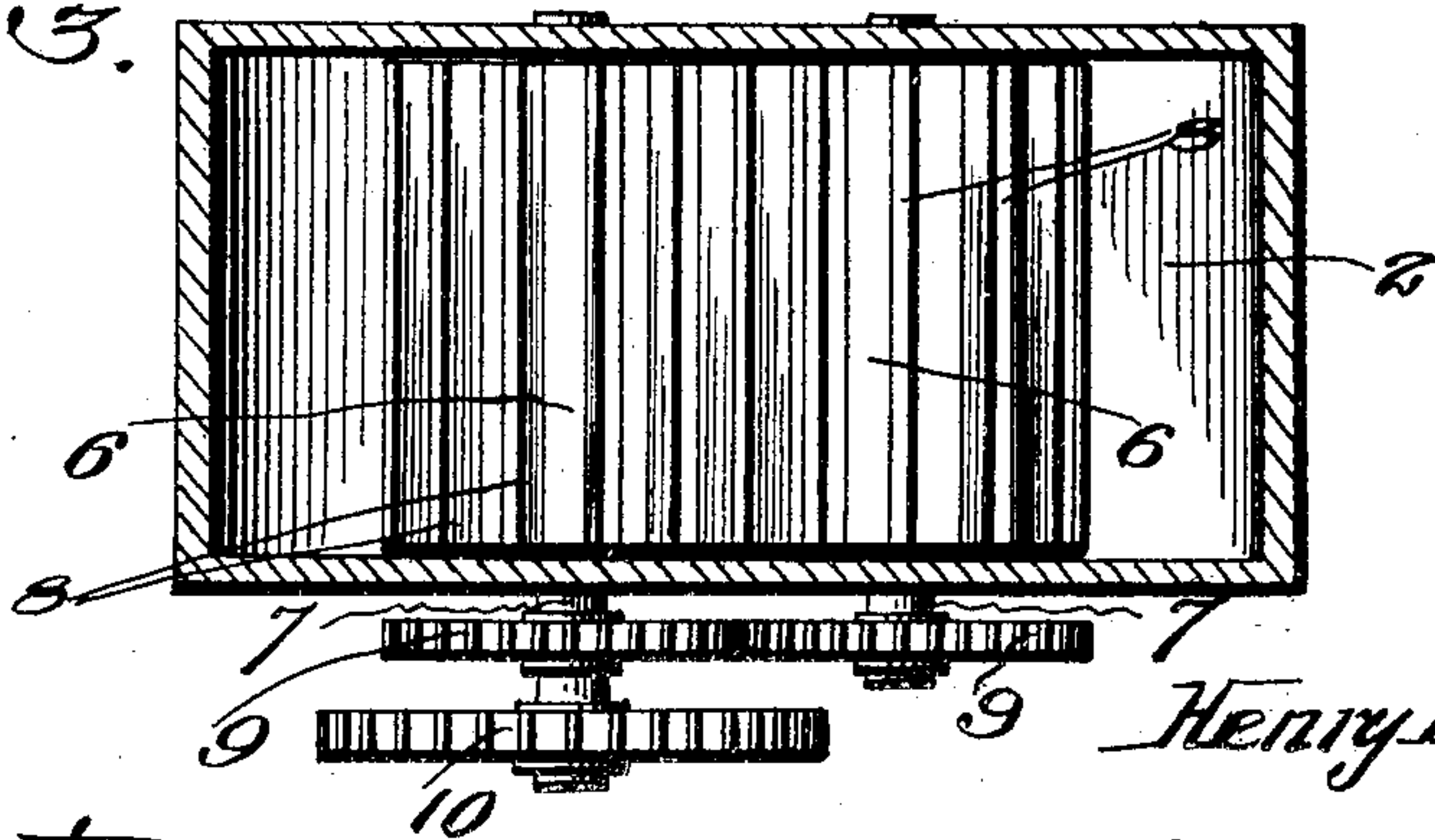


Fig. 3.



Witnesses
C. E. Hunt,
L. O. Hilton.

Inventor
Henry D. Frerking.
By *A. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

HENRY D. FRERKING, OF PALMER, KANSAS.

FEED-ROLLER FOR GRAIN-DRILLS.

SPECIFICATION forming part of Letters Patent No. 771,137, dated September 27, 1904.

Application filed April 7, 1904. Serial No. 202,056. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. FRERKING, a citizen of the United States, residing at Palmer, in the county of Washington and State of Kansas, have invented certain new and useful Improvements in Feed-Rolls for Grain-Drills; 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.

This invention relates to improvements in feed-rolls for grain-drills and seeding-machines.

The object of the invention is to provide a seeding mechanism for grain-drills and the like consisting of a pair of rolls revolubly mounted beneath the grain box or hopper of a seeding-machine, said rolls being provided with radial longitudinally-disposed intermeshing ribs which receive the grain from the discharge-outlet of the hopper and feed it evenly to the seed-tubes.

A further object is to provide a feeding mechanism of this character which will be simple in construction, strong, durable, and efficient, the construction being such that the seeds will not be crushed by the feed-rolls, nor will said rolls become choked up with dirt or foreign matter which may be in the seed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of the seed-hopper and feed-roll box of a seeding-machine constructed in accordance with my invention. Fig. 2 is a vertical longitudinal sectional view of the same; and Fig. 3 is a horizontal sectional view through the feed-roll box, taken above the feed-rolls.

Referring more particularly to the drawings, 1 denotes a grain box or hopper, which may be of the usual or any suitable construction. To the under side of the hopper is secured a feed-roll box 2, the ends of which in-

cline or converge inwardly toward the bottom of the box, which is open and communicates with the upper end of the seed-tubes. (Not shown.) In the upper side of the box 2 is formed a feed-opening 3, the size of which may be regulated by a sliding valve or plate 4, arranged above the feed-rolls and which is adapted to work through a slot 5 in the side of the feed-roll box. Rotatably mounted in said feed-roll box are two feed-rolls 6, which are fixed on shafts 7, the ends of which project through and are journaled in the sides of the feed-roll box 2. Each roll 6 is provided with longitudinal ribs 8, which project radially therefrom. The thickness of the ribs is less than the width of the space between each pair of ribs, which spaces form the seed-pockets. The rolls are so mounted in the box 2 that the ribs thereof are in intermeshed relation; but owing to the fact that the width of the pockets is greater than the thickness of the ribs the latter do not come in contact, and hence do not crush the seeds. The rolls are rotated simultaneously in reverse directions by spur-wheels 9 on the ends of their shaft 7 and the spurs of which are closely intermeshed to prevent or minimize lost motion between the rolls, and thereby prevent the ribs thereof from coming in contact and crushing the seeds between them. A driving-wheel 10 is here shown on one of the roll-shafts, which may be operated by any suitable driving means to impart rotary motion to the rolls.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a seeding-machine, the combination of a pair of rolls having radial longitudinal ribs disposed in intermeshing relation, the width

of the spaces between the ribs being greater than the thickness of the latter and the ribs of the respective rolls being out of contact with one another, means to simultaneously rotate
5 the rolls in opposite directions and prevent such lost motion between them as to cause their ribs to come in contact with one another, and means to feed seeds onto the rolls, the latter serving to evenly distribute and discharge
10 the seeds without crushing the same.

2. In a seeding-machine, the combination of a hopper having a feed-valve in its lower side, a pair of rolls below the said valve, having radial longitudinal ribs disposed in intermesh-
15 ing relation, the width of the spaces between the ribs being greater than the thickness of the latter and the ribs of the respective rolls being out of contact with one another, and means to simultaneously rotate the rolls in op-
20 posite directions and prevent such lost motion

between them as to cause their ribs to come in contact with one another.

3. In a seeding-machine, the combination of a pair of rolls having radial longitudinal ribs disposed in intermeshing relation, the width
25 of the spaces between the ribs being greater than the thickness of the latter and the ribs of the respective rolls being out of contact with one another, and closely-intermeshing gears, on the shaft of the said rolls to simultaneously
30 revolve them in opposite directions and minimize lost motion between them.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY D. FRERKING.

Witnesses:

G. G. HOSTUTLER,

A. H. TEGELER.