

No. 675,530.

Patented June 4, 1901.

W. STEPHENSON.  
TONGUE SOCKET FOR SEED DRILLS.

(Application filed Oct. 12, 1900.)

(No Model.)

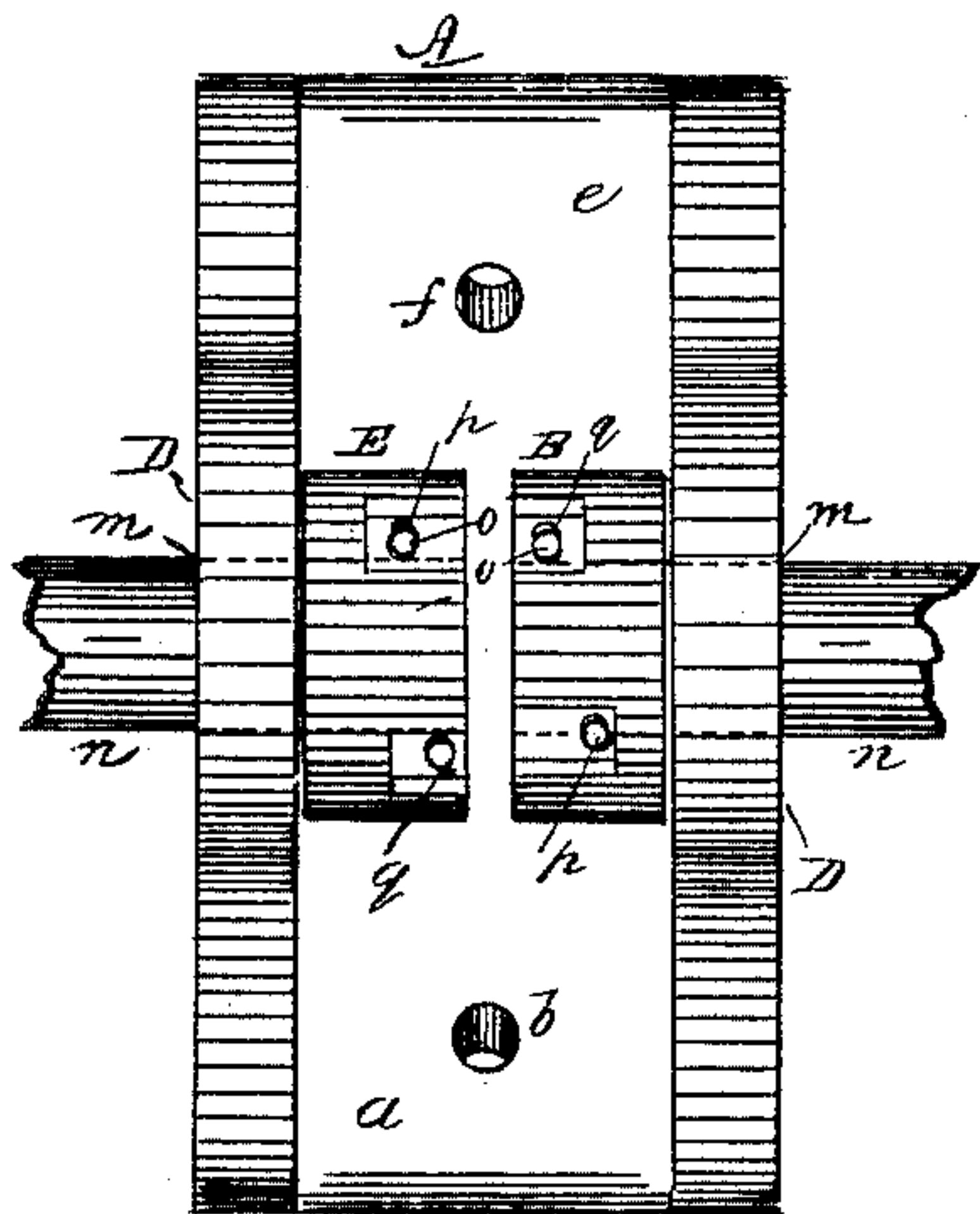


Fig. 1.

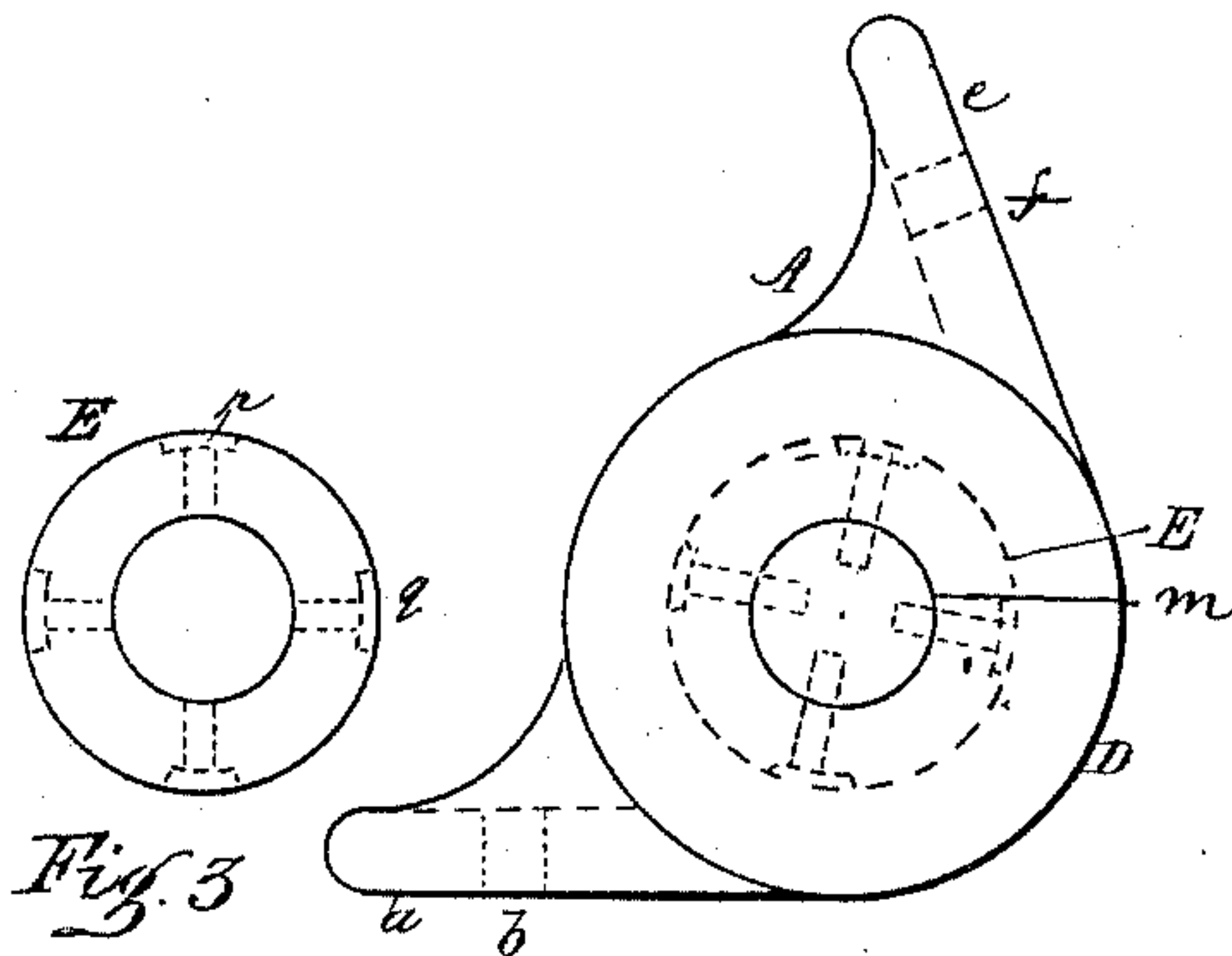


Fig. 3.

Fig. 2.

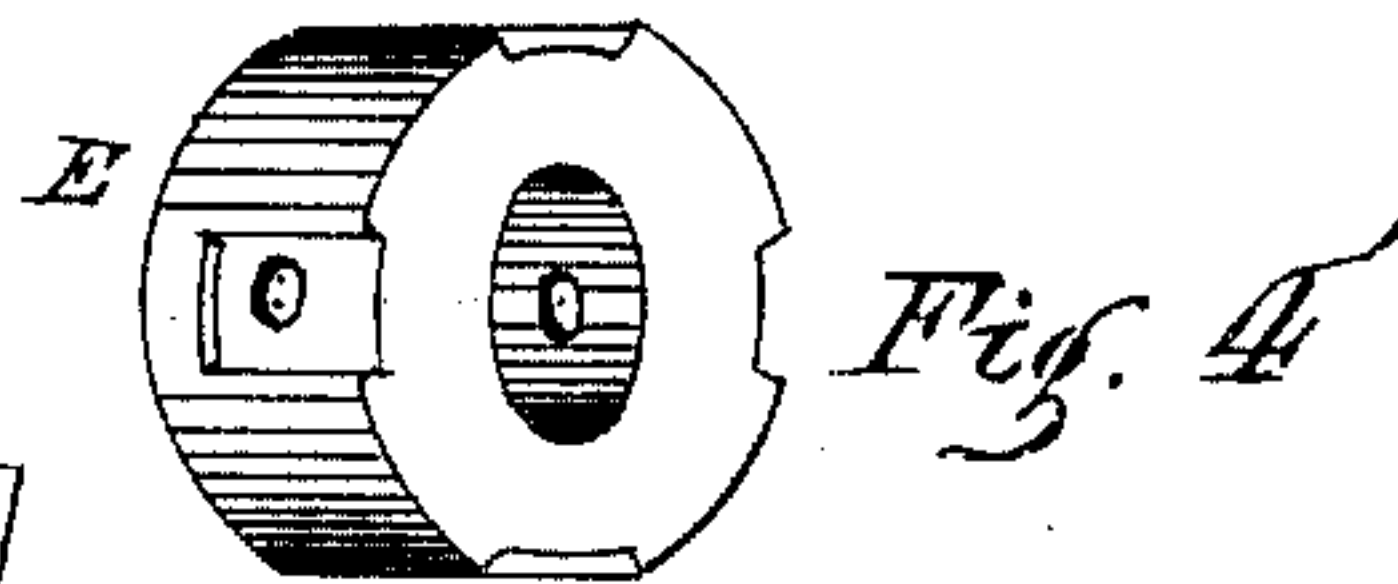


Fig. 4.

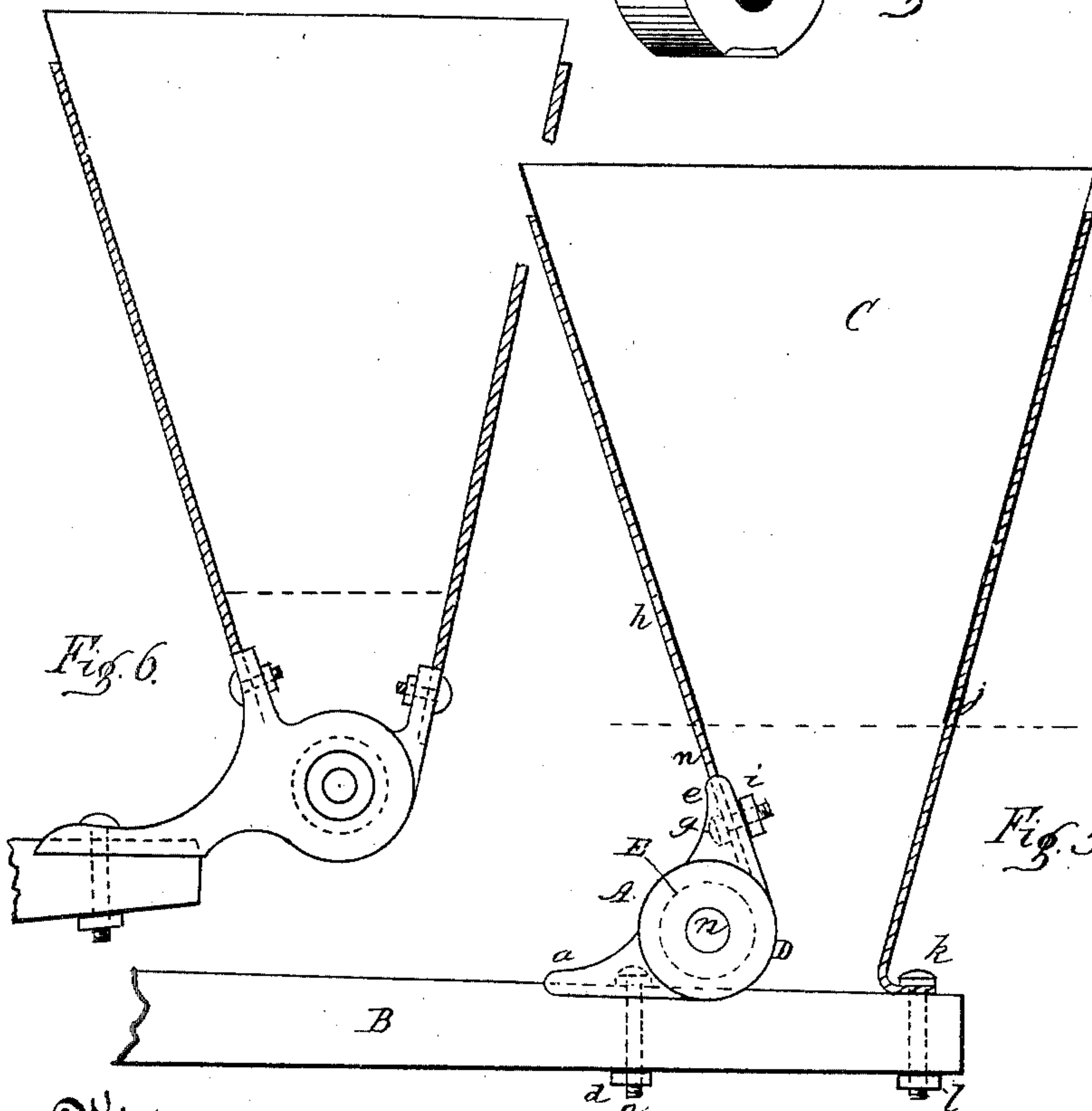


Fig. 6.

Fig. 5.

Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM STEPHENSON, OF MORRIS, CANADA.

## TONGUE-SOCKET FOR SEED-DRILLS.

SPECIFICATION forming part of Letters Patent No. 675,530, dated June 4, 1901.

Application filed October 12, 1900. Serial No. 32,833. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM STEPHENSON, a resident of Morris, in the county of Provencher, Province of Manitoba, Dominion of Canada, but residing temporarily at Minneapolis, in the county of Hennepin, in the State of Minnesota, have invented certain new and useful Improvements in Tongue-Sockets for Seed-Drills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

This improvement relates to seed-drills which have the axle in two pieces, the ends butting together in a casing, called a "tongue-socket," bored out to fit them—that is, bolted to the tongue and hopper at the center of the drill holding them together.

The construction of the old socket had nothing to keep the axles from working endwise, and the devices that were used were not always successful in holding the axles in place. One device was to put a collar with a set-screw in it on the axle on the inside of the hopper end casting, which formed the boxing for the axle to run in. These set-screws with the working of the machine would become loose and let the axle move endwise and come out of the socket. Another plan was to drill a hole through the axle and collar and rivet or bolt a collar on. The hole weakened the axle, and it broke at this place, necessitating a new axle being put in the machine, which delayed the agriculturist and cost the manufacturer money.

My tongue-socket is cored out in the center, (where the axles butt together,) so that a sufficiently strong collar is put on each axle, with a cotter key or bolt through the collar and axle, holding them to the tongue-socket, so that they cannot move endwise. One hole through the center of the collar and one hole being one-eighth of an inch from the center of the collar provides for a variation of one-eighth of an inch in each axle simply by putting the collars on with the different sides against the tongue-socket. This is very convenient to take up the end wear of the machine or adjusting any variations in the length in constructing the machine.

Figure 1 is a front view of the tongue-

socket. Fig. 2 is a side view. Fig. 3 is a side view of one of the two collars. Fig. 4 is a perspective view of one of the two collars detached from the shafts. Fig. 5 is a side view of one of the hoppers, tongue-socket, and tongue broken off. Fig. 6 is a side elevation of a modification of my tongue-socket.

In the drawings, A A, Figs. 1 and 2, represent the tongue-socket provided with a base flange or bed *a*, with a bolt-hole *b* through it, by which it is secured to the tongue B by a bolt *c*, tightened by a nut *d*, and on the upper side is a similar bed or flange *e*, having a bolt-hole *f* drilled through it, by which to secure it to the lower portion of the hopper C by a bolt *g* passing through the said hole and through a strap *h* on the front side of the hopper C, secured by a nut *i* on the inside of the hopper, as shown at Fig. 5. Another strap *j* on the rear side of the hopper C secures the hopper to the tongue by a bolt *k*, secured by a nut *l*.

D D are two circular-shaped sides on each side of the socket A (see Fig. 1) and each provided with a circular central opening *m* for the shafts or axles *n n* to pass through, as shown.

E E are collars placed between the sides D D and into which the ends of the axles *n* are inserted. There is an oblong hole *p* through the center of each collar and one similar hole *q* also through each about one-eighth of an inch from the center of each collar to receive a cotter pin or bolt *o*, which is made to pass through each axle and collar to hold them in the tongue-socket, so that they cannot move endwise.

The placing of the holes *p q* on the center and off the center one-eighth of an inch in each collar provides for a variation of one-eighth of an inch in each axle *n* simply by putting the collars on with the different sides against the tongue-socket. This is very convenient to take up the end wear of the machine or adjusting any variations in the length in constructing the machine.

A slight modification of the device is shown at Fig. 6, in which the two projections point slantingly upward and outward, to which to secure the hopper C at front and rear by bolts and nuts, and the front of the device is elongated.



gated to receive the rear end of the tongue, to which it is bolted, and which may be the subject-matter for a separate application.

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

1. In combination with a seed-drill a tongue-socket, consisting of a bracket having a base flange or bed bolted to the tongue and an upper flange or bed, the same bolted to the strap of the hopper, a circular collar secured at each central side of the socket, with an opening in each to receive the horizontal shafts, a collar on the inner end of each shaft, between the disks, a bolt-opening through the center of each collar and a bolt-opening a short distance from the center in each collar for the shafts and collars to be secured by bolts, all constructed substantially as and for the purpose specified.

2. In combination with a seed-drill, a tongue-socket A, the same constructed with upper and lower flanges *a*, *e*, and bolted to the tongue B, and strap *h*, of the hopper C, sides D, D, attached to the socket or cast with it and provided with openings *m*, for the ends of the

shafts *n*, *n*, circular collars E, E, placed between the sides D, D, having central openings to receive the extreme inner ends of the shafts *n*, *n*, and be secured thereto by a bolt in the center of each, or a slight distance from the center, for variation of wear, all constructed substantially as and for the purpose specified.

3. In a seed-drill, the combination of the tongue-socket A, provided with openings *b*, *f*, sides D, D, with central openings, collars E, E, having central bolt-openings *p*, *q*, shafts *n*, *n*, made to pass through the sides D, D, and collars E, E, and bolted to the said collars, the lower flange *a*, of the tongue-socket A, bolted to the tongue B, of the seed-drill, and the upper flange *e*, of the socket A bolted to the hopper C, or strap *h*, of the hopper, all constructed substantially as and for the purpose specified.

Dated at Minneapolis, Minnesota, United States of America, the 20th day of June, 1900.

WILLIAM STEPHENSON.

In presence of—

A. E. WOOLSEY,

KATHARINE BAER.