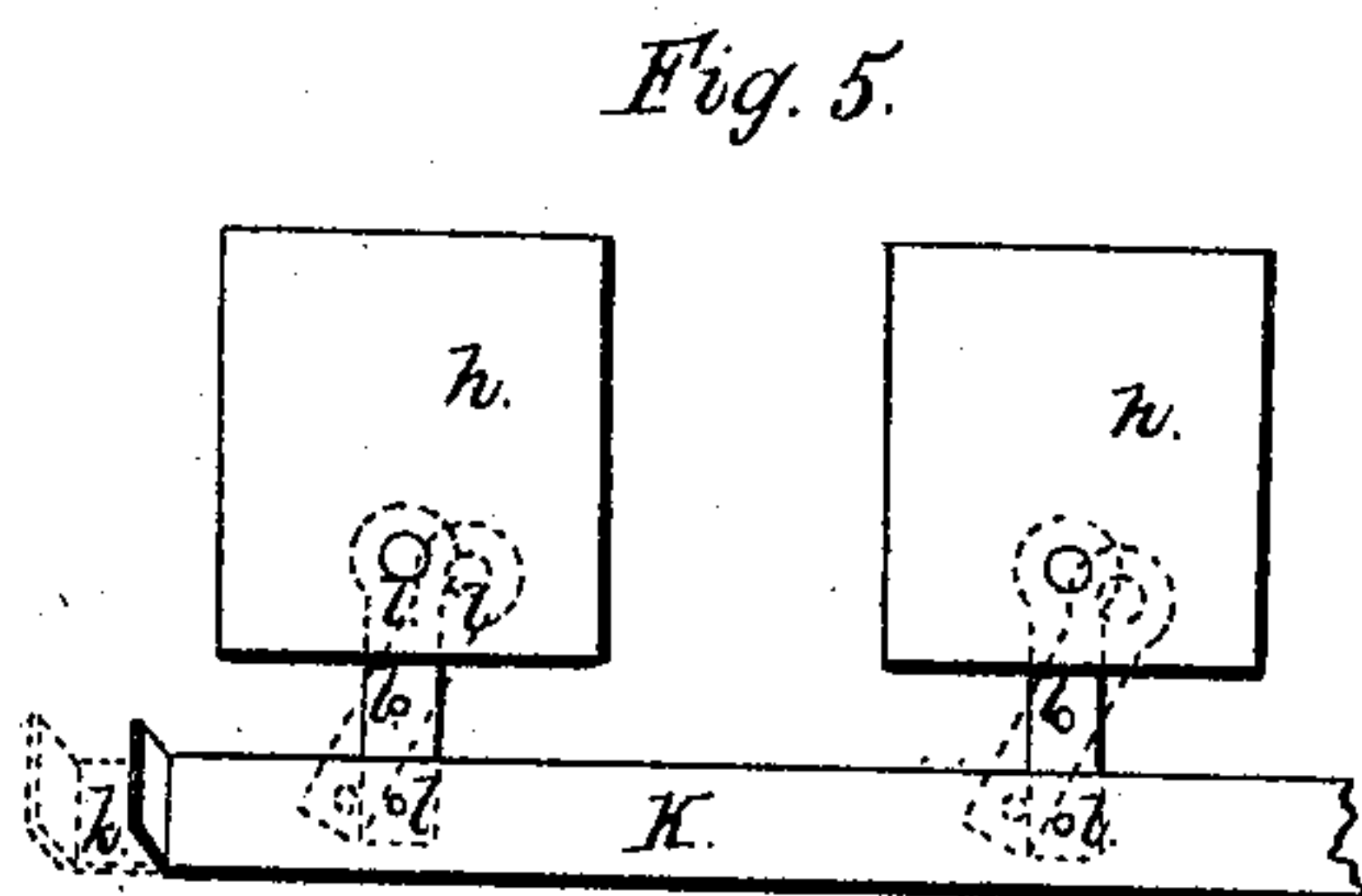
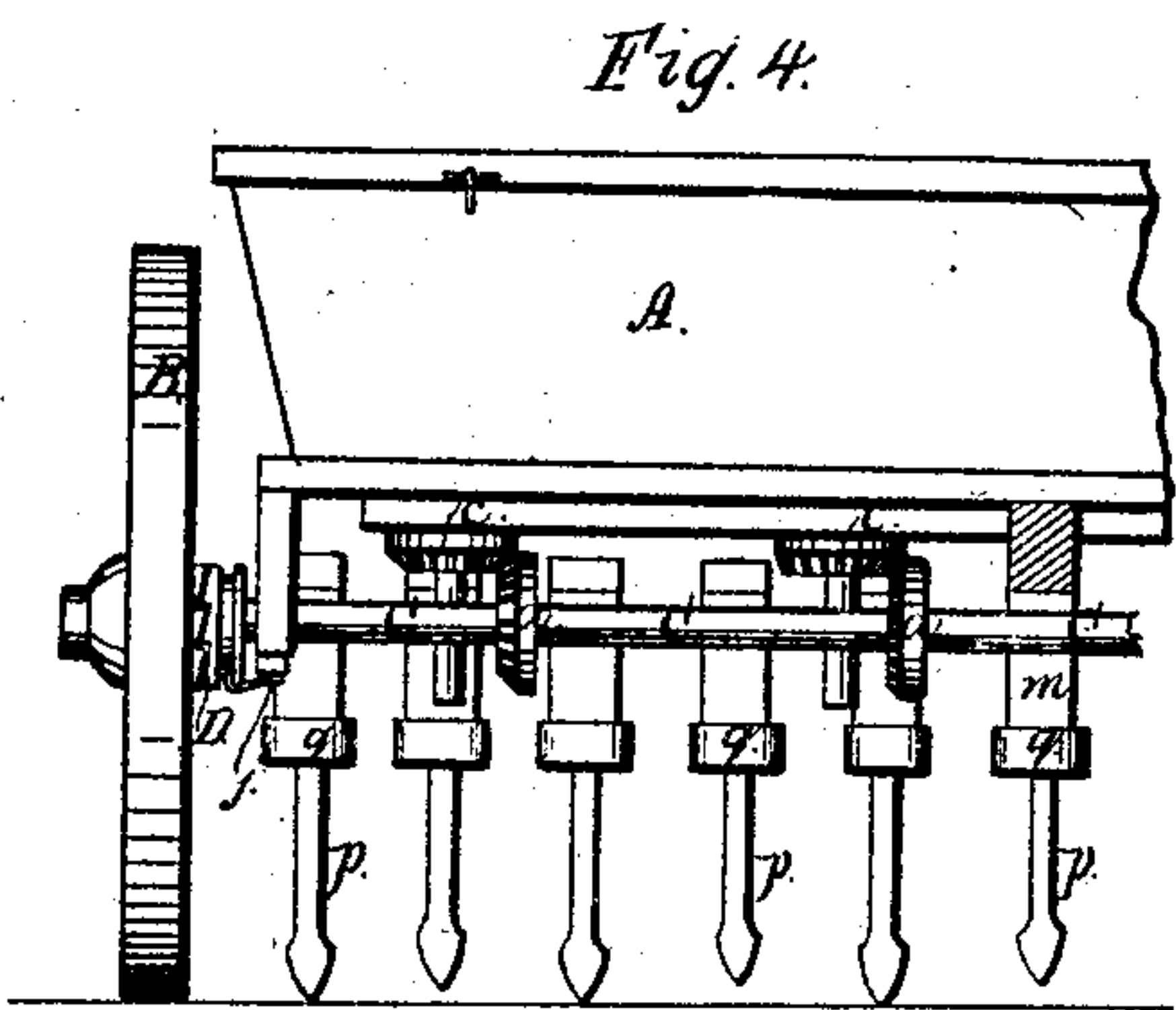
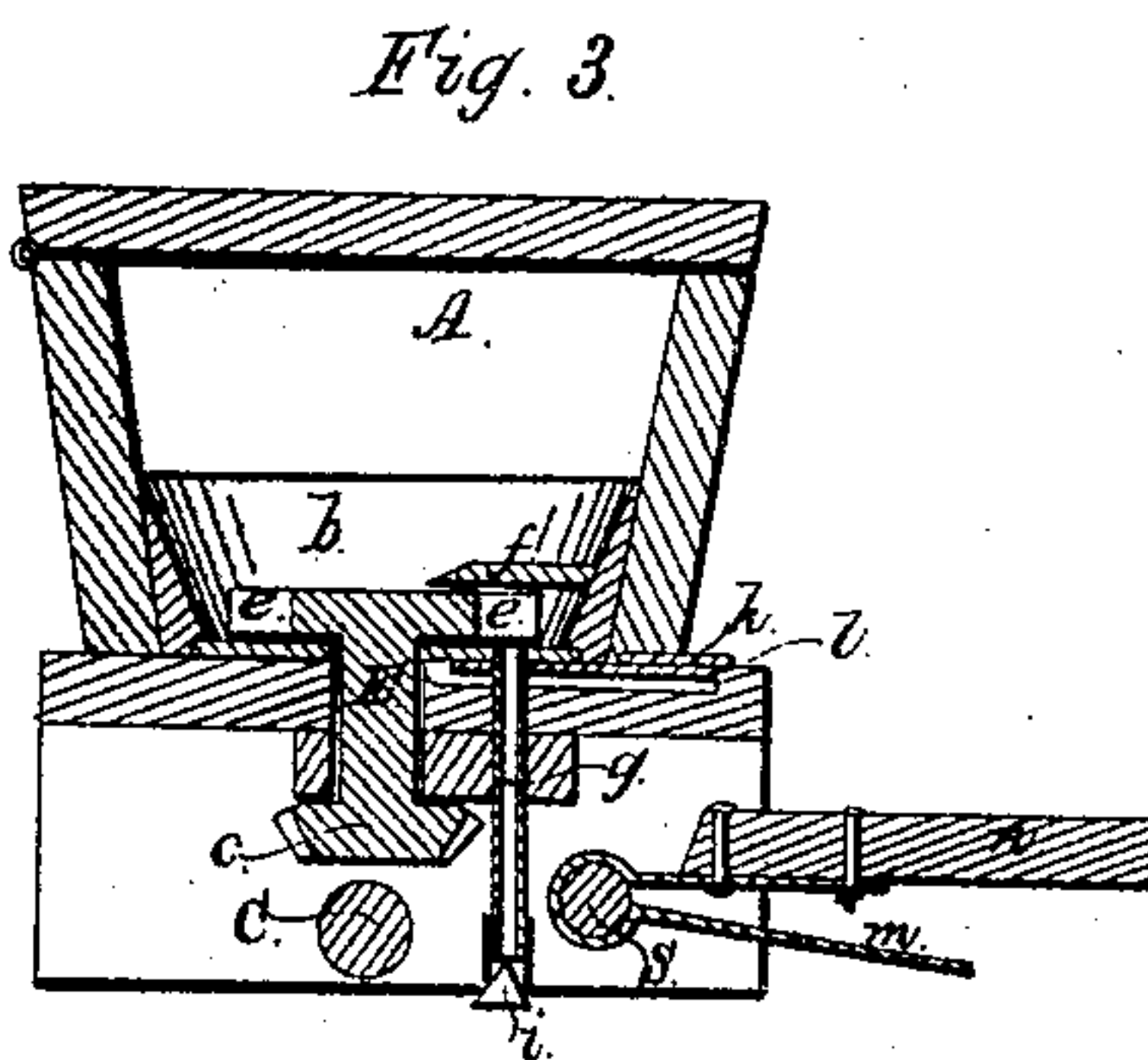
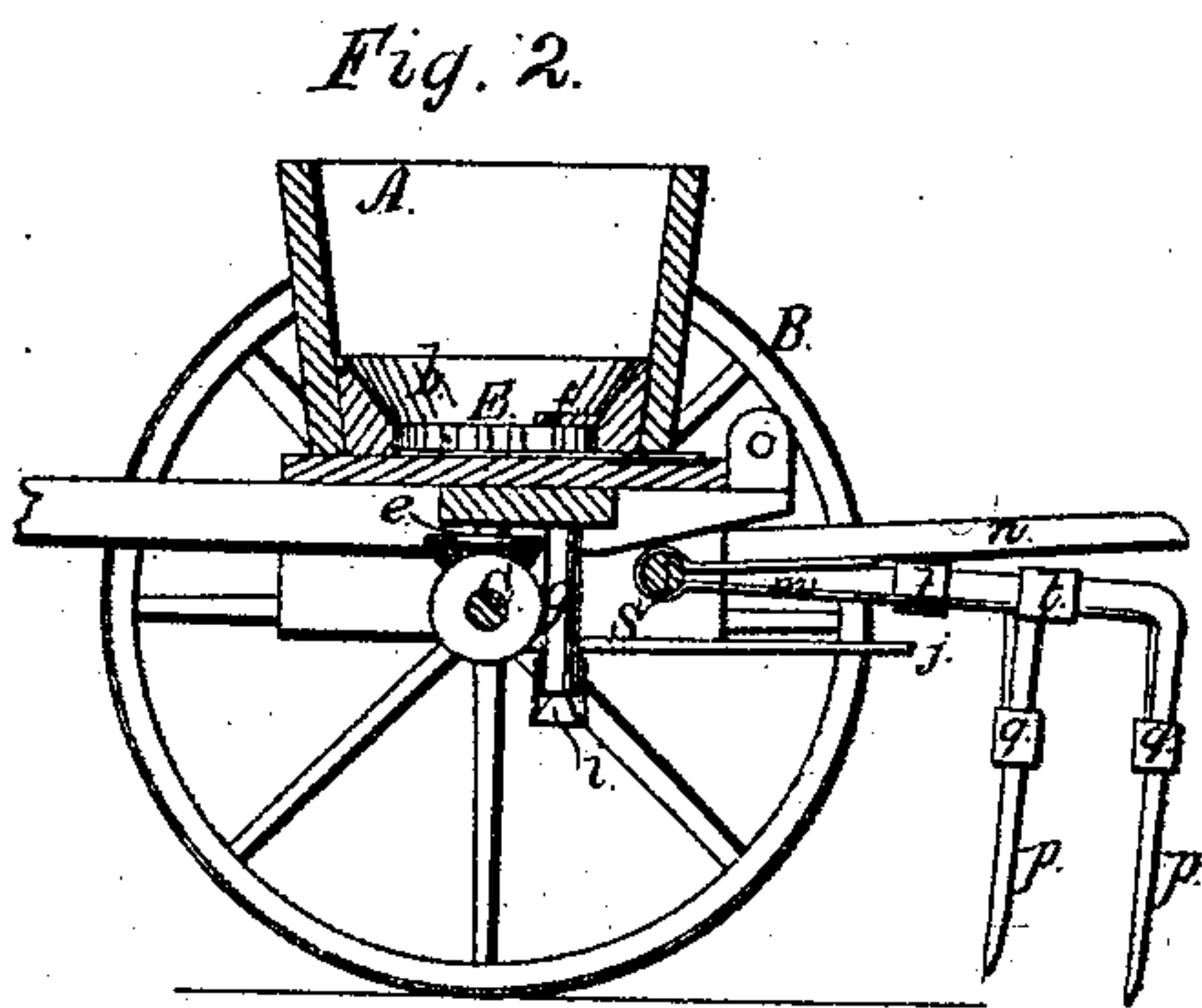
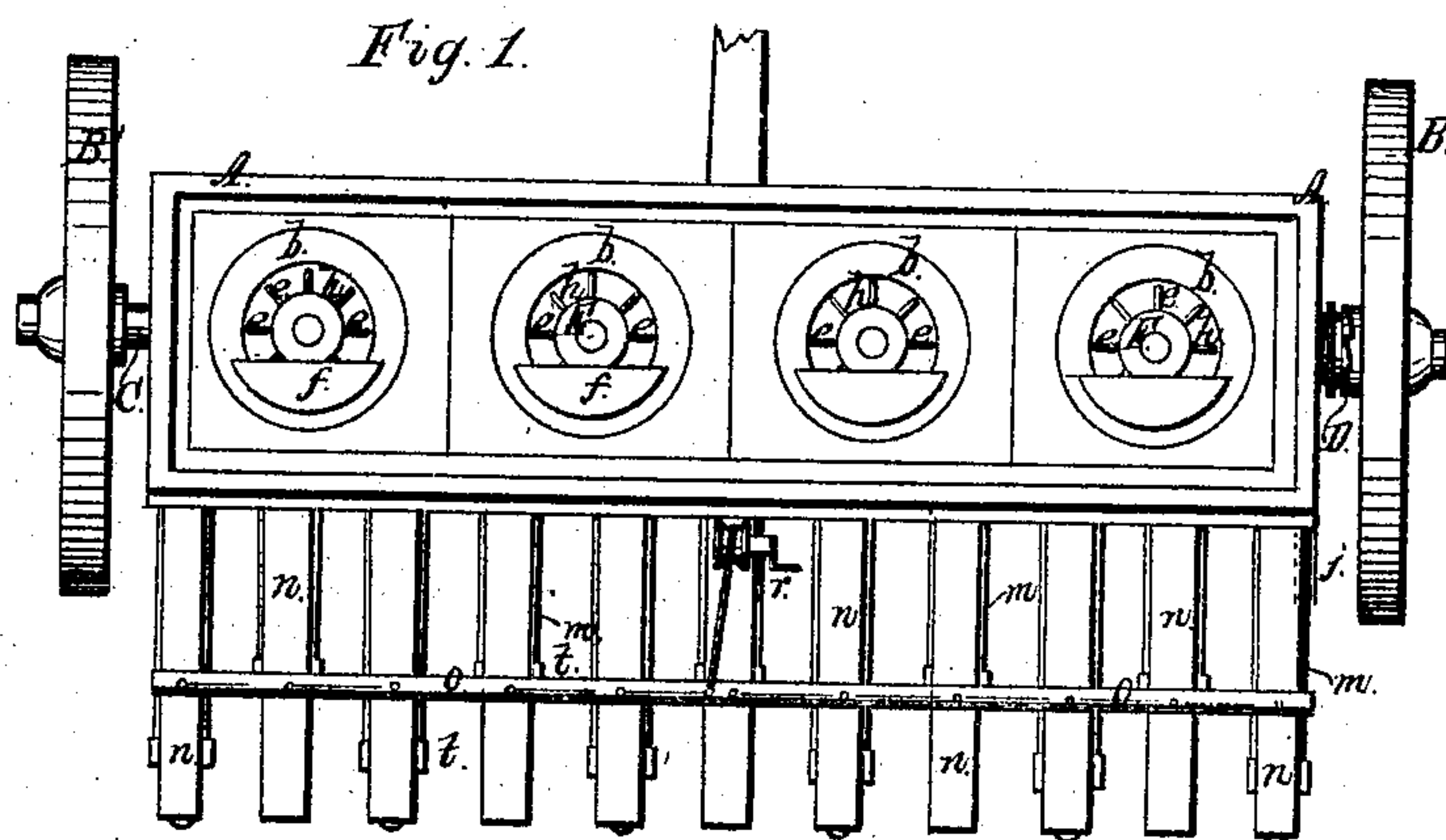


W. D. STROUD.
Seeder and Cultivator.

No. 101,178.

Patented March 22, 1870.



Witnesses.

Henry J. Smith
W. H. Butz.

Inventor.

W. D. Stroud.
by Theodore Munger
his Attorney.

UNITED STATES PATENT OFFICE.

WM. D. STROUD, OF OSHKOSH, WISCONSIN.

IMPROVEMENT IN SEEDERS AND CULTIVATORS COMBINED.

Specification forming part of Letters Patent No. **101,178**, dated March 22, 1870.

To all whom it may concern:

Be it known that I, WILLIAM D. STROUD, of the city of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Seeders and Cultivators, of which the following is a specification.

The first part of my invention relates to the application of a horizontally-revolving seed-distributor provided with paddles to the bottom of the seed-cup of a seeding-machine, the object of this part of my invention being to supply the seed to the discharge-tubes with uniformity.

The second part of my invention relates to the combination of the parts of the seeding-machine and a set of cultivator-teeth, arranged in such a manner that when the seed is supplied to the discharge-tubes by the horizontally-revolving seed-distributor and sown the cultivator-teeth will pass over the ground sown, the object of this part of my invention being to sow the seed broadcast and to harrow it in as it is sown.

In the drawings, Figure 1 is a top view of the machine. Fig. 2 is a transverse section of the machine, showing a view of the revolving seed-distributor. Fig. 3 is a transverse section of the machine, showing a section of the seed-cup and revolving seed-distributor. Fig. 4 is a rear view of half of the machine. Fig. 5 is a top view of the metallic bottom of the seed-cups and the sliding gages for regulating the size of the openings of the discharge-tubes.

A is a seed-box. B and B' are supporting-wheels. B is also the driving-wheel. C is the axle and driving-shaft, provided with the beveled wheels *a*. D is the coupling attachment. *b* represents the seed-cups. E represents the revolving seed-distributor, having the paddles *e* and beveled wheels *c*. *f* represents the cut-off plates placed in the seed-cups *b*, directly over the opening of the discharge-tubes *g*. *h* is the metallic bottom of the seed-cups *b*. *i* is a scatterer. *j* is a lever for throwing the coupling D in and out of gear. *k* is a bar that connects the sliding gages *l*. *m* is a spring-lag. *n* is a supplemental lag. *o* is a connecting-bar. *p* is a cultivator-tooth. *q* and *t* are collars used to connect the tooth *p* to the spring-lag *m*. *r* is a sheave, with cord and crank for raising

the cultivator-teeth from the ground. *s* is the bar or shaft to which the cultivator-teeth are attached.

Operation of the invention: The wheel B revolves upon the axle or driving-shaft C when the coupling D is out of gear. The coupling D is fastened to the driving-shaft C, so that it can be thrown in or out of gear by the lever *j*, and when the coupling D is in gear it is revolved by the wheel B and causes the shaft C to be revolved. The revolution of the shaft C communicates motion to the seed-distributors E through beveled wheels *a* and *c*. The paddles *e* carry the seed under the cut-off plates *f*, where it passes out of the discharge-tubes *g*. As it passes out of the discharge-tubes *g* the scatterers *i* scatter it broadcast, and the cultivator-teeth *p* pass over and harrow it in. When one of the cultivator-teeth *p* strikes an object the spring-lag *m* permits them to rebound and clear the object without interfering with the working of the machine. By turning the crank of the share *r* the cord attached to the bar *o* raises the cultivator-teeth from the ground.

I claim as my invention—

1. The revolving seed-distributor E, having the paddles *e* and beveled wheel *c*, cut-off plate *f*, and seed-cup *b*, arranged relatively to one another and to the sliding gage *l*, connecting-bar *k*, discharge-tube *g*, and driving-shaft C, substantially as and for the purposes hereinbefore specified.

2. The spring-lag *m*, supplemental lag *n*, cultivator-tooth *p*, and collars *q* and *t*, arranged relatively one to the other, substantially as and for the purposes hereinbefore specified.

3. The combination of the seed-box A, supporting and driving wheels B and B', driving-shaft C, with beveled wheels *a*, coupling D, lever *j*, revolving seed-distributors E, having paddles *e* and beveled wheels *c*, cut-off plates *f*, seed-cups *b*, sliding gages *l*, bar *k*, discharge-tubes *g*, scatterers *i*, spring-lags *m*, supplemental lags *n*, cultivator-teeth *p*, collars *q* and *t*, connecting-bar *o*, bar *s*, and sheave *r*, with cord and crank, substantially as and for the purposes hereinbefore specified.

W. D. STROUD.

Witnesses:

W. G. RITCH,
GEO. W. BURNELL.