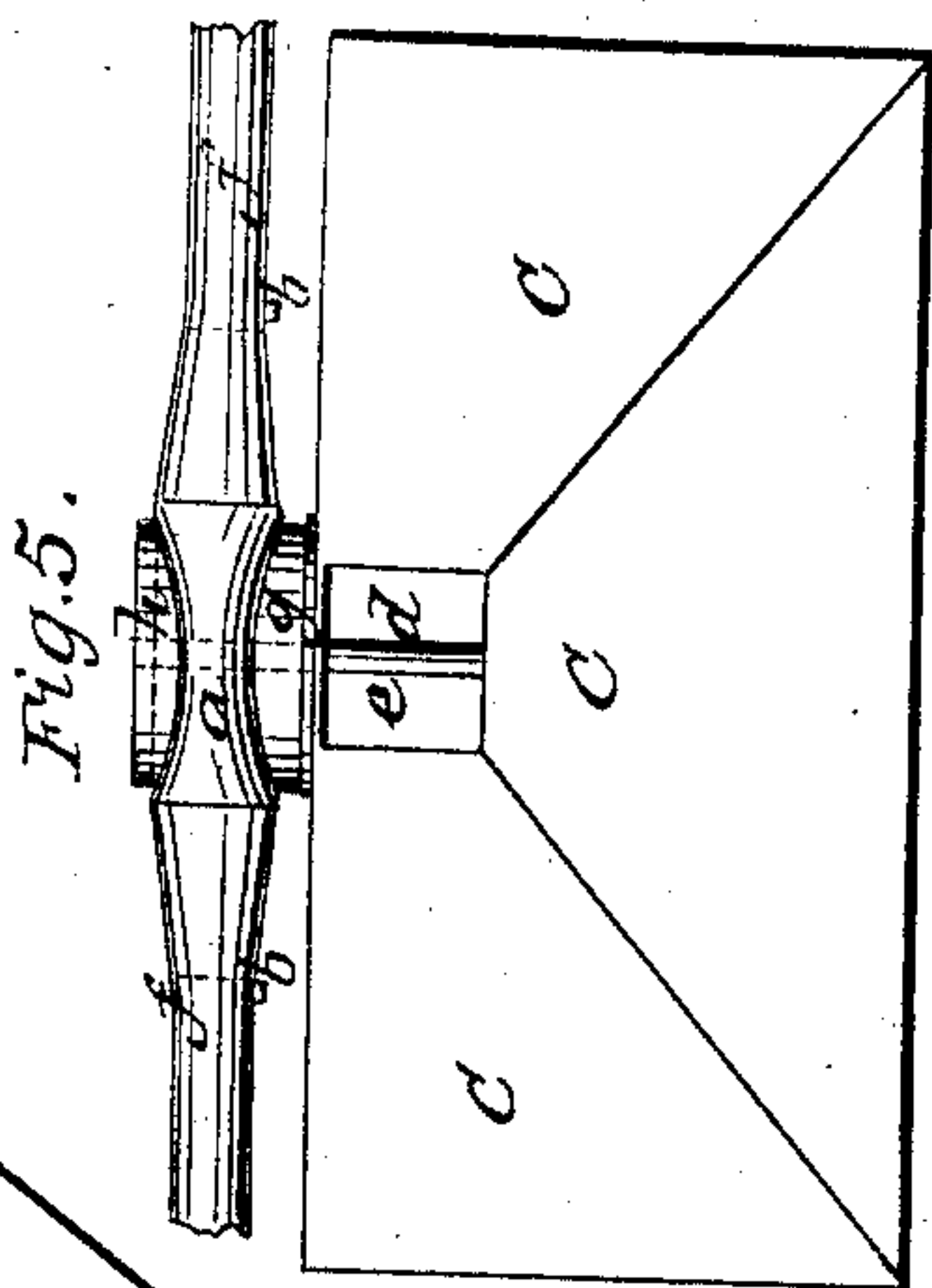
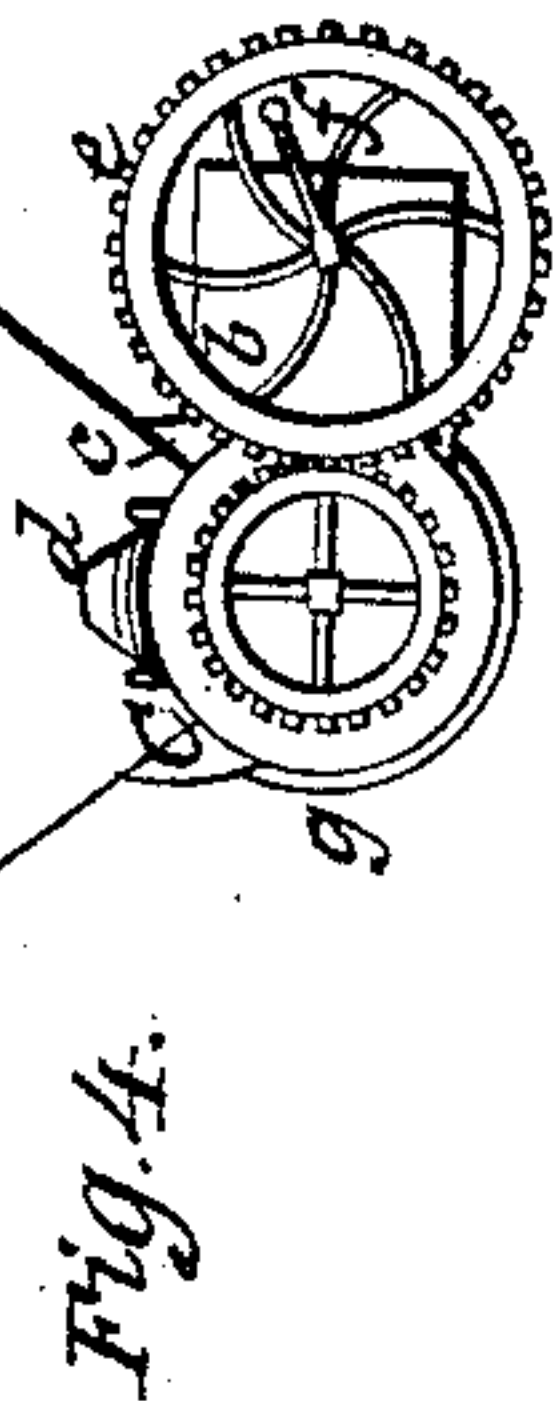
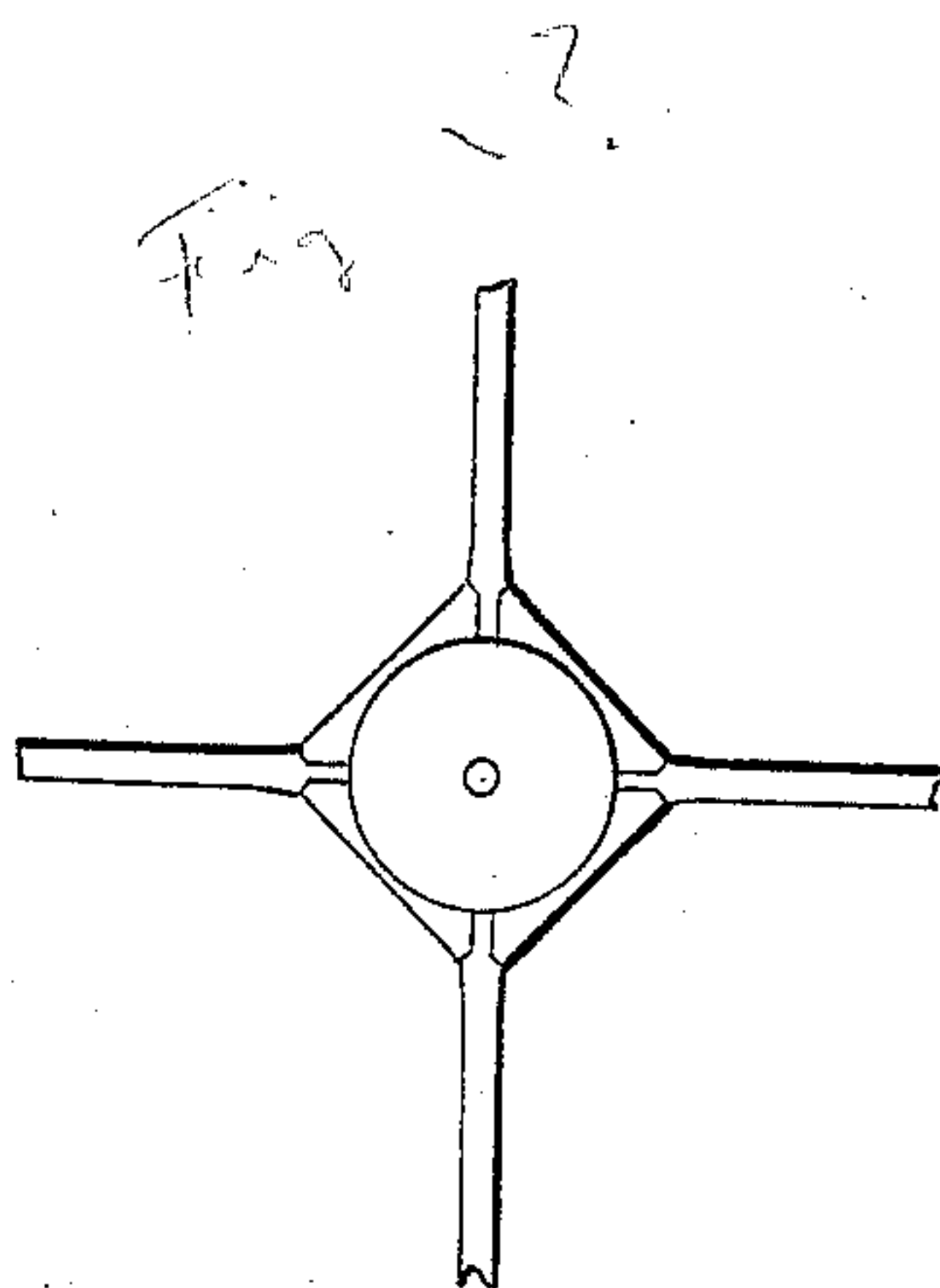
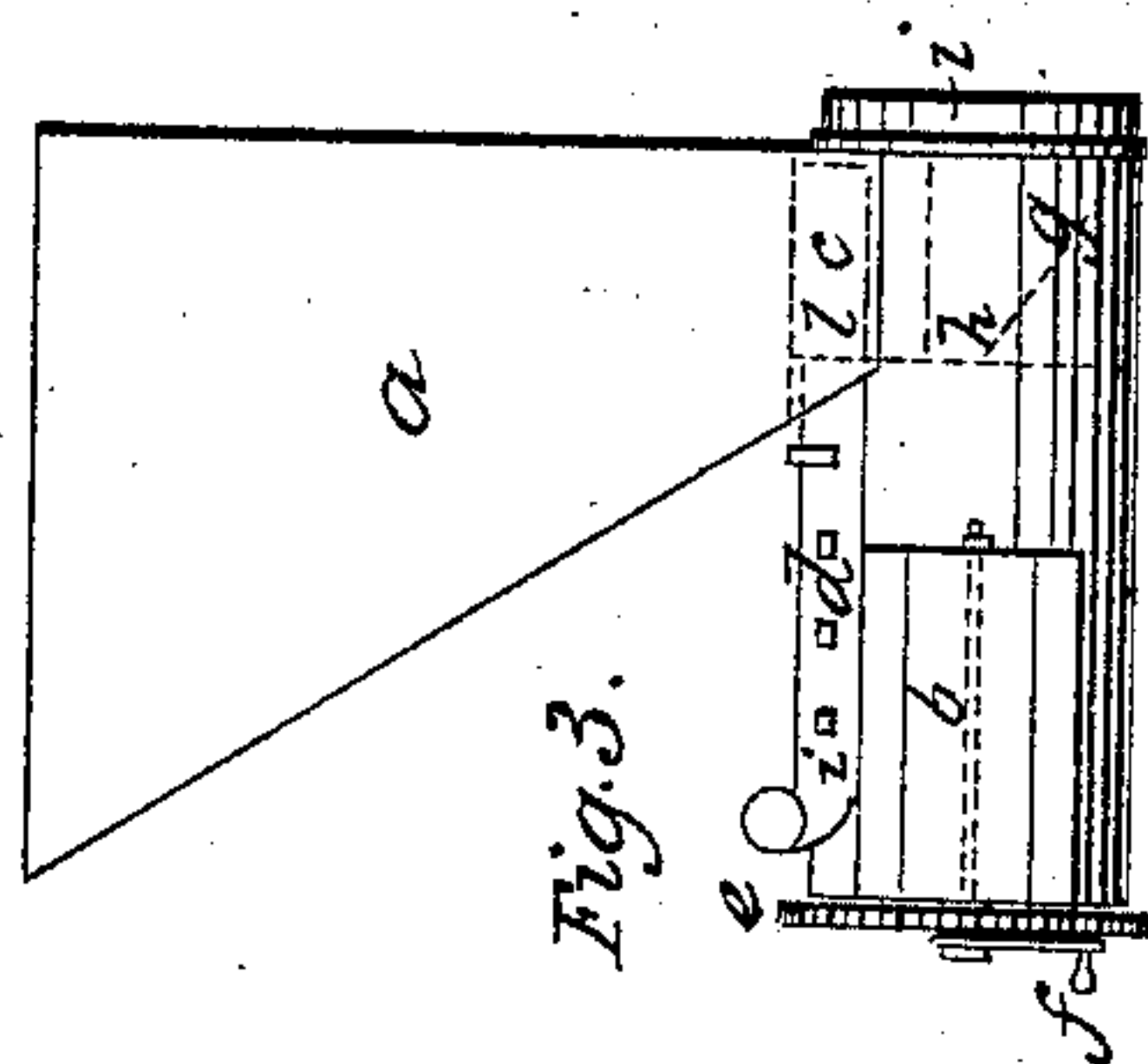
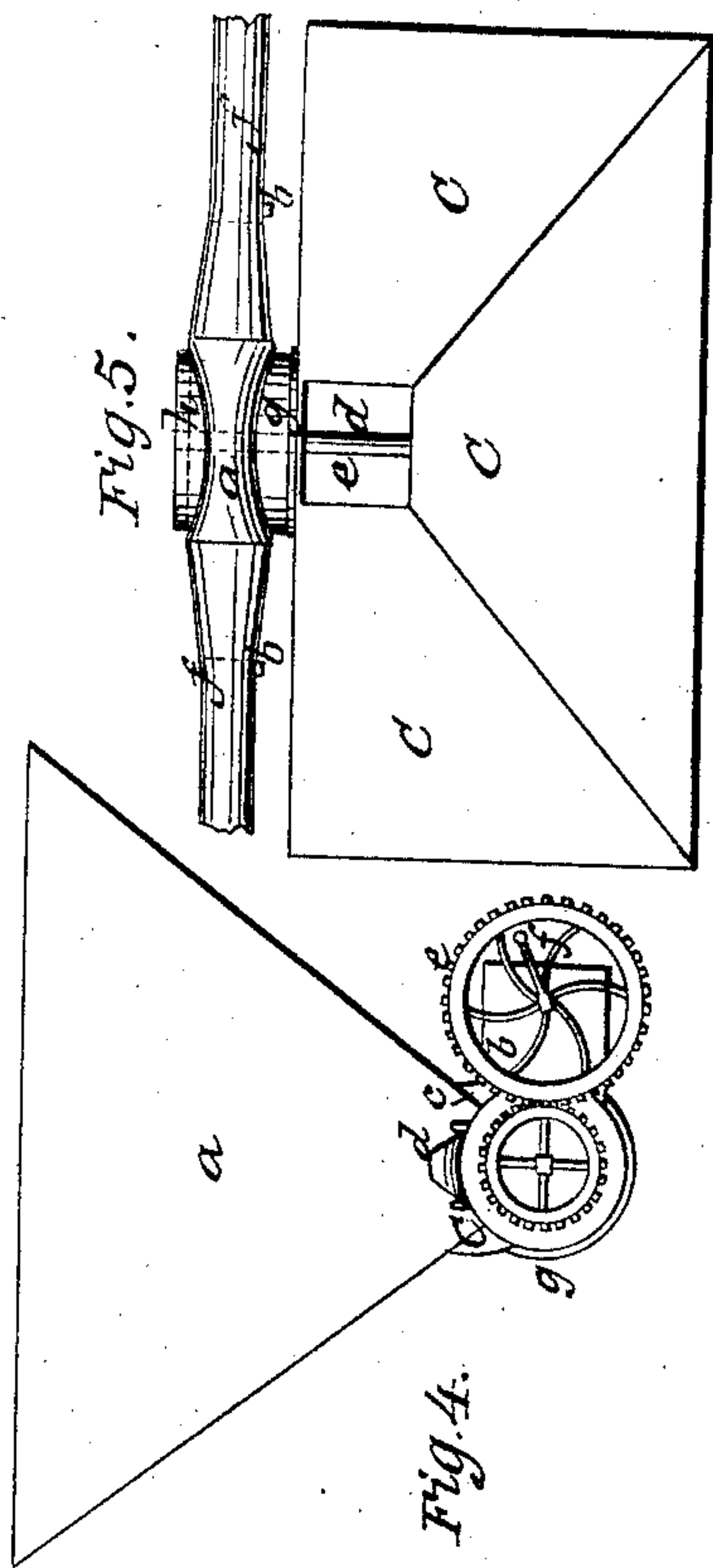


J. F. GYLES.  
Broadcast-Seeder.

No. 27,713.

Patented Apr. 3, 1860



Inventor.

James F. Gyles.

# UNITED STATES PATENT OFFICE.

JAMES F. GYLES, OF GILMER TOWNSHIP, ADAMS COUNTY, ILLINOIS.

## IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 27,713, dated April 3, 1860.

*To all whom it may concern:*

Be it known that I, JAMES F. GYLES, of Gilmer township, in the county of Adams and State of Illinois, have invented new and useful Improvements in a certain Seed-Sower for which Aaron Ring, of Portland, in the State of Maine, did, on the 2d day of last March, obtain Letters Patent, and in which I am interested, inasmuch as I have purchased considerable territory from the said patentee; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the said improvements, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a perspective view of one section with the tubes through which the seed is thrown when the machine is in operation. *a a a a* are braces for strengthening tubes where fastened. *b b b* are pins fixed in that joint of tube which is fastened to cap, in order to receive the portion of tube *c* and hold it securely in place when in operation, by which it can also be removed at any time. *e* is an additional piece or double crown to cap, in order to secure more firmly the iron rod by which the tubes are whirled around when in position. (See dotted lines, Fig. 5.)

Fig. 2 is a transverse of same section, showing the three braces and coupling at once. *a a a* are the braces. *b b b* are the couplings by which the tubes *c* can be removed at pleasure and secured without soldering them on.

Fig. 3 is a side view of cylinder and hopper. *a* shows hopper with square edge and square base set on cylinder, which gives hopper a firmer position and allows a closer fit of same immediately over the slide, as well as allowing a ledge within for the slide to work upon. *b* is a side attachment to cylinder for securing largest cog-wheel and its axle. *c* is brace to hopper to secure it more firmly. *d* is intended to show holes in slide, with spring fixed on inside of cylinder to work into these holes, which enables the operator with the left hand to regulate the quantity of seed to be sown per acre, as when geared up and in operation, with the

machine buckled around the body, it is impossible to see the slide *l*. *e* is the cog-wheel; *f*, crank to same. *h*, dotted lines, are intended a vertical piece within the cylinder, immediately behind, opening into hopper. Through this vertical piece in the center passes the iron rod which connects tubes and cap with the other portion of machine when in use, the object being to obtain a round hole and washer fitting the rod so perfectly that the smallest kind of seed cannot escape into after part of cylinder, and the inclined piece *g* serves, as it was no doubt originally intended, to cause the seed to run more readily into the tubes. *i* is a narrow band of iron or brass around the cylinder, immediately in front of hopper, up to which the cap, with its tubes, is made to fit exactly and work without cutting the hopper, and which cannot otherwise be done.

Fig. 4 is an end view of cylinder and hopper, with gearing of cog-wheels, by which the revolutions of the tubes are increased, the effort to turn the tubes lessened, and the seed thrown at a much greater distance. *a* is the hopper in front. *b* is end view of side attachment. *c c* are strengthening-braces at base of hopper; *d*, top end of slide. *e e* are the cog-wheels in position described above; *f*, crank or handle to same. *g* is the narrow iron band to secure the close fitting of cap when the tubes are connected with cylinder, and to prevent the hopper from being cut, as previously stated in reference to Fig. 3, letter *i*.

Fig. 5 is a transverse view of hopper, showing its square base resting on cylinder with slide open; *a*, strengthening-brace to tube; *b b*, coupling-pin to hold the tubes together where jointed; *c c c*, sides of hopper with square base-ledges. *d* is the iron rod running through center of cylinder to connect cap and tubes, as well as to give motion to the tubes; *e*, hole in hopper when slide is open; *f*, that portion of the tubes which is removable. *g* is the iron band passing around cylinder, immediately in front of the hopper, to secure a close fit of cap, and to prevent, in the working of same, the hopper from being cut. *h*, dotted lines, are intended to show where the double crown in the inside of cap is placed, as explained in Fig.



1, letter *e*, so as to secure the iron rod more firmly in its position and its connections when the machine is in operation.

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

1. The stud and angular slot or "bayonet-catch" *b*, Fig. 1, when combined with the revolving arms of a rotary seed-sower, in the manner set forth.

2. The combination of the transverse partition *h*, Fig. 3, and the inclined partition *g*, Fig. 3, in the manner and for the purpose specified.

JAMES F. GYLES.

Witnesses:

F. B. WALKER,

H. B. MYERS.