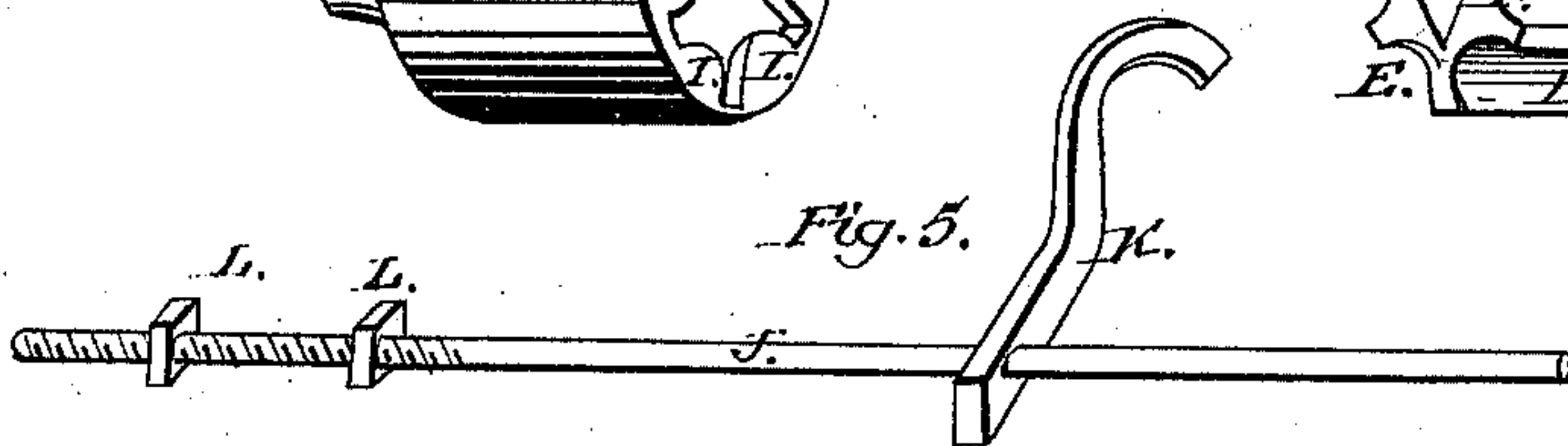
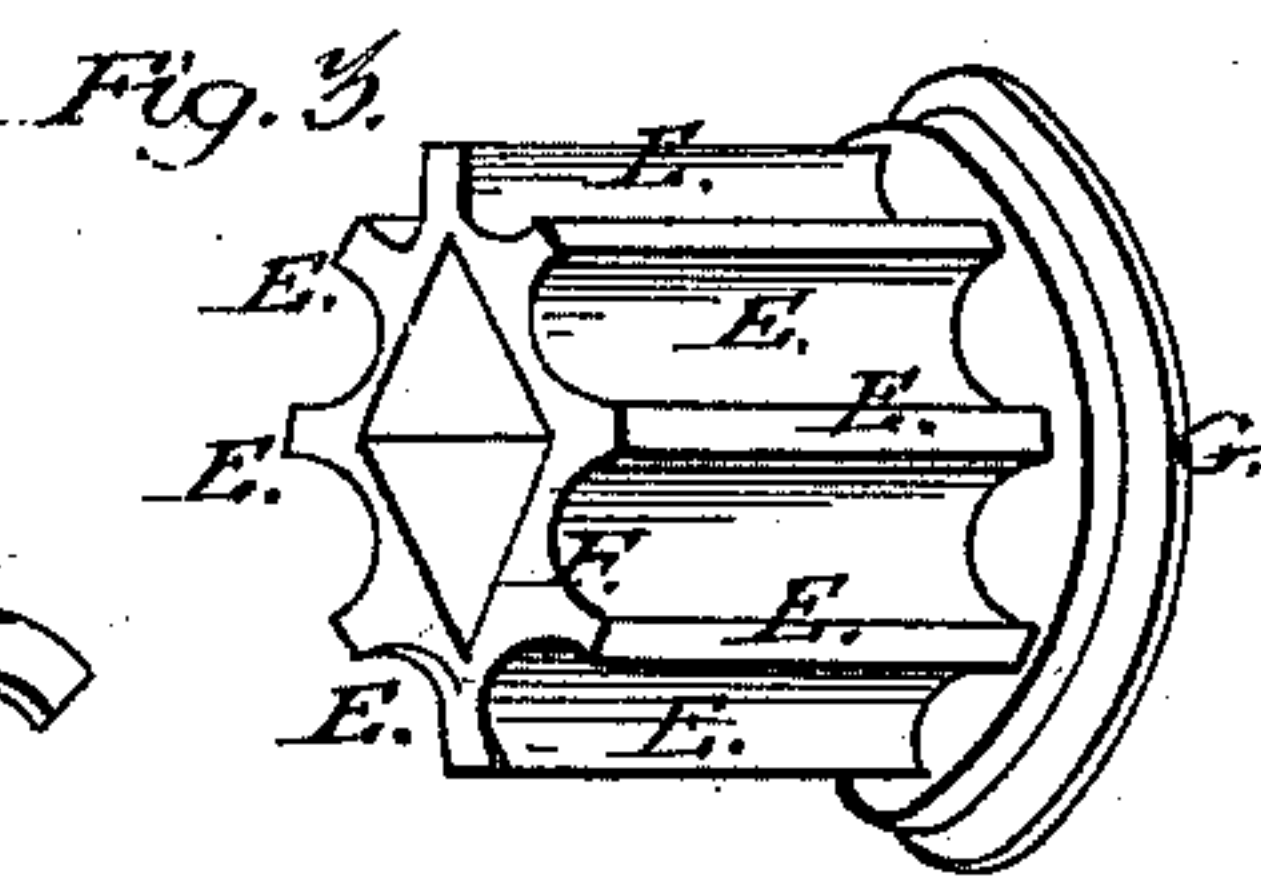
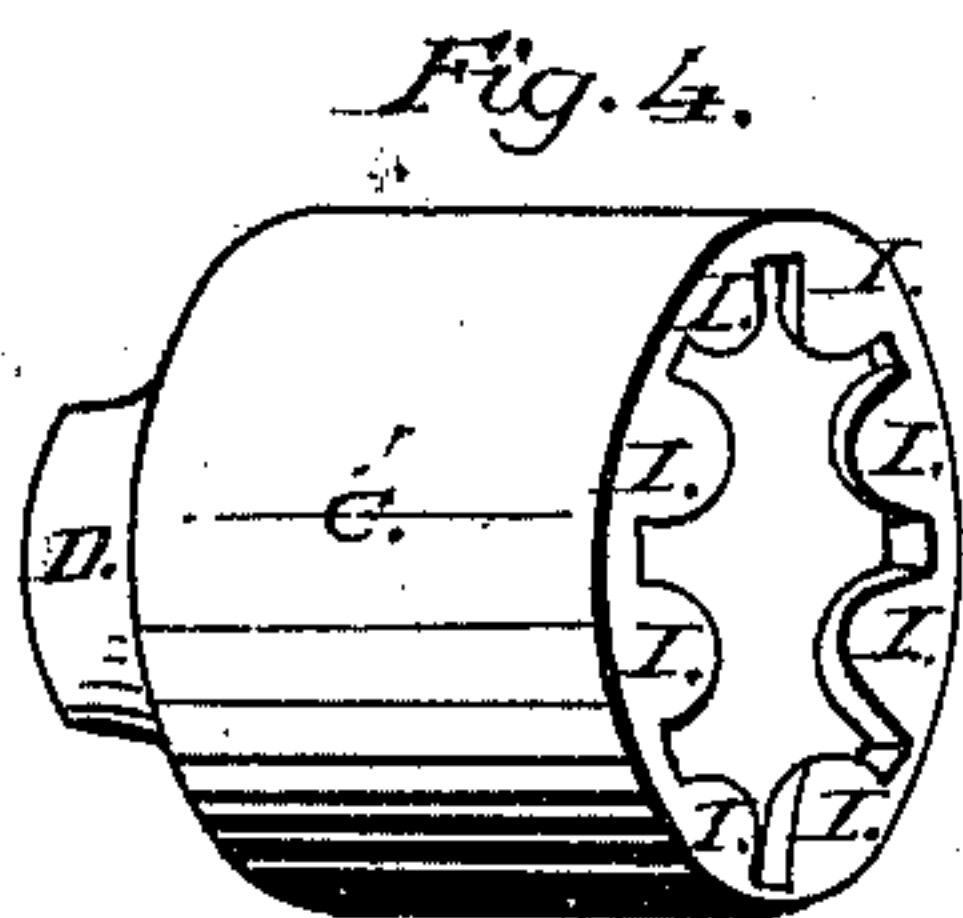
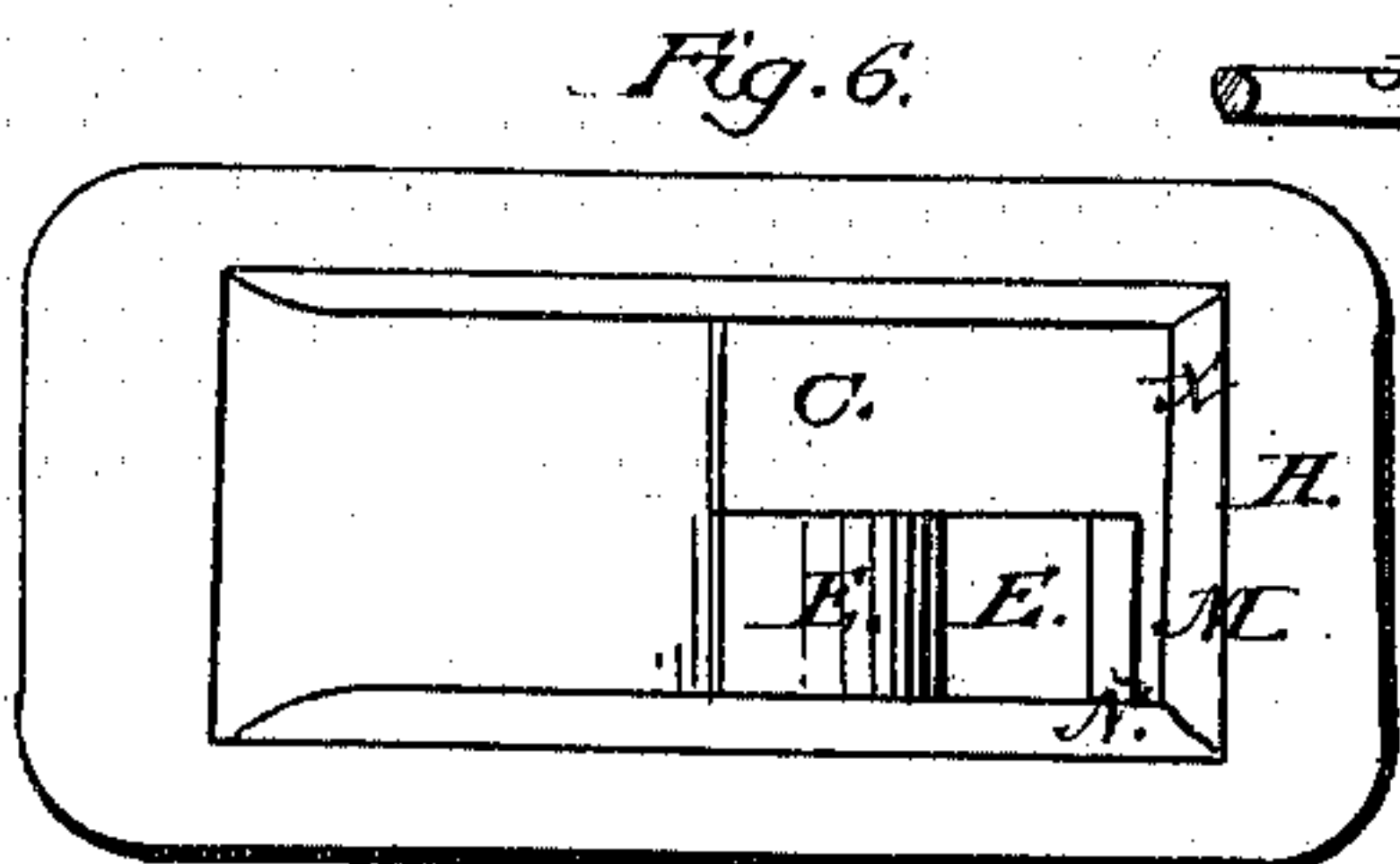
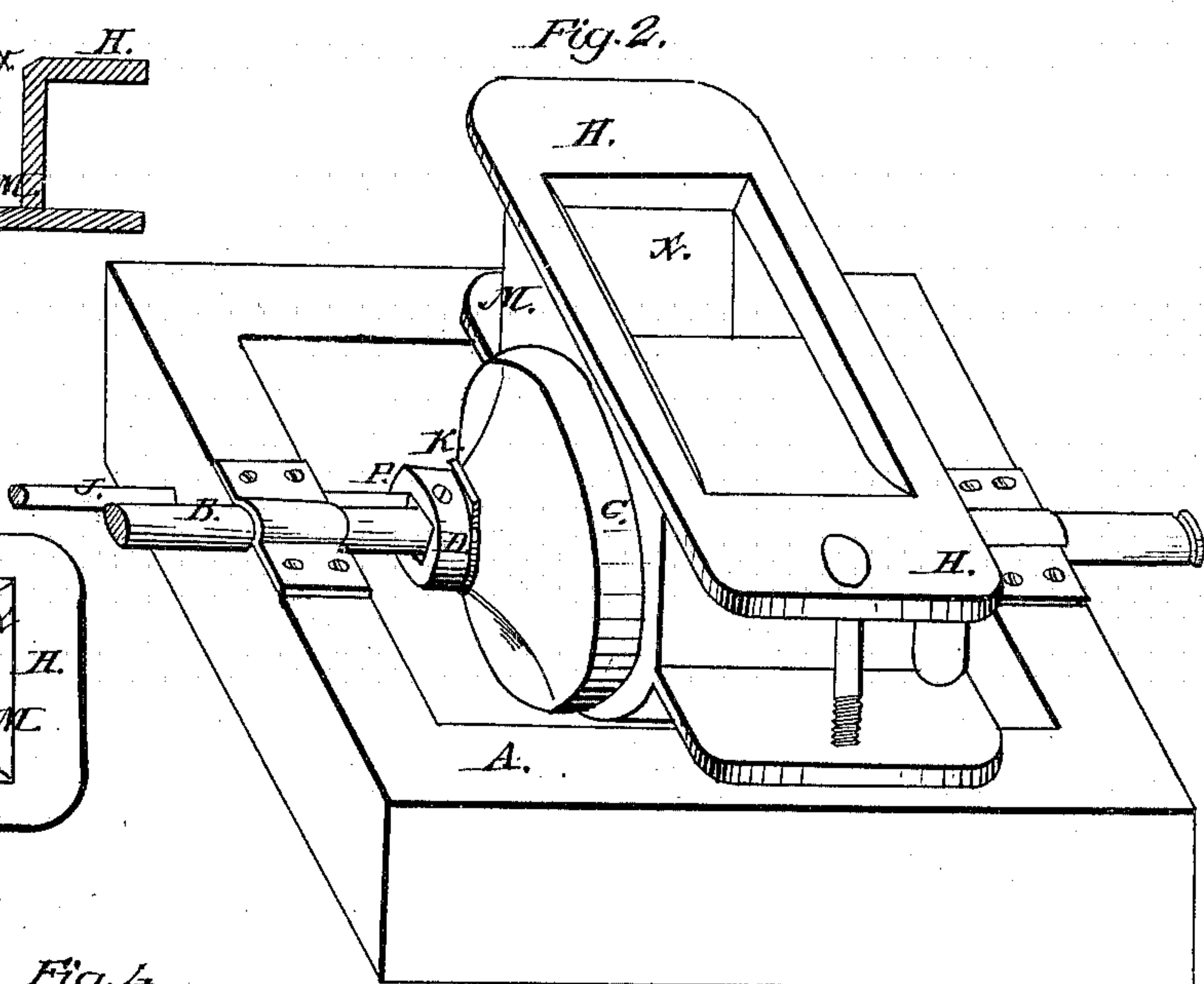
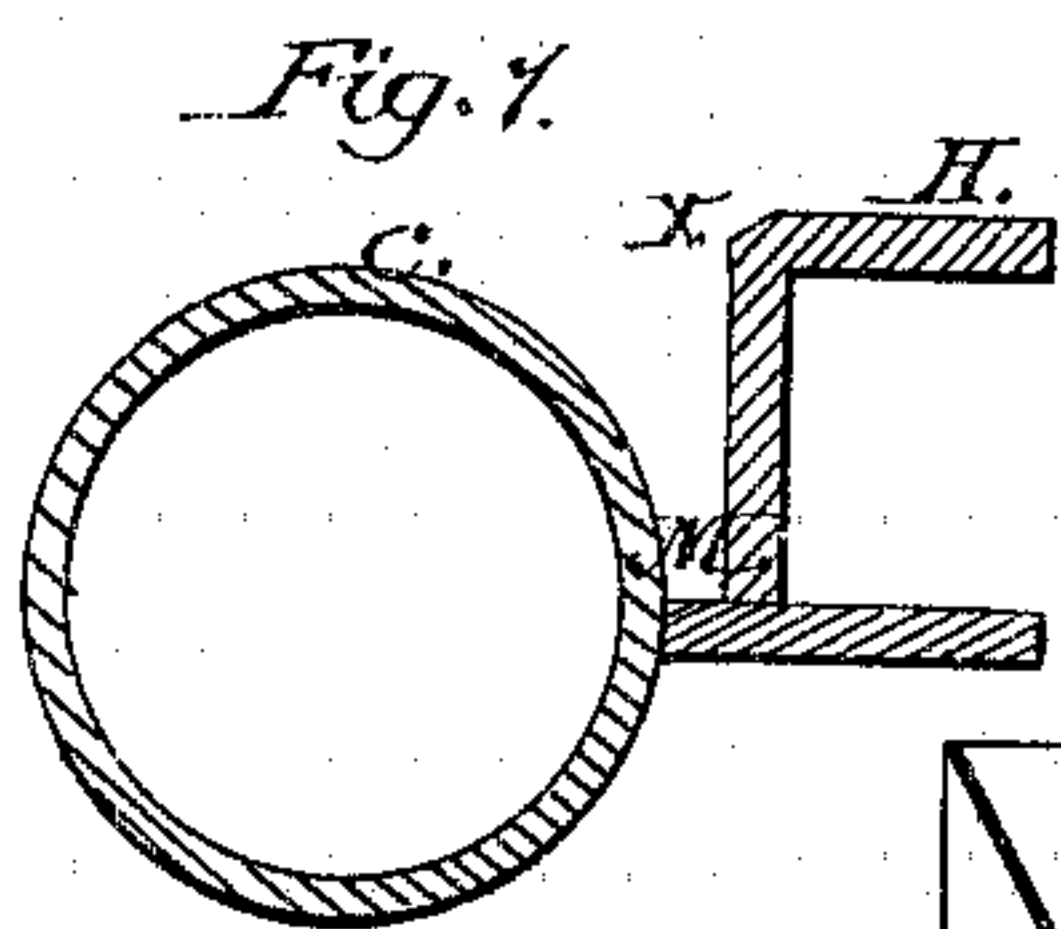
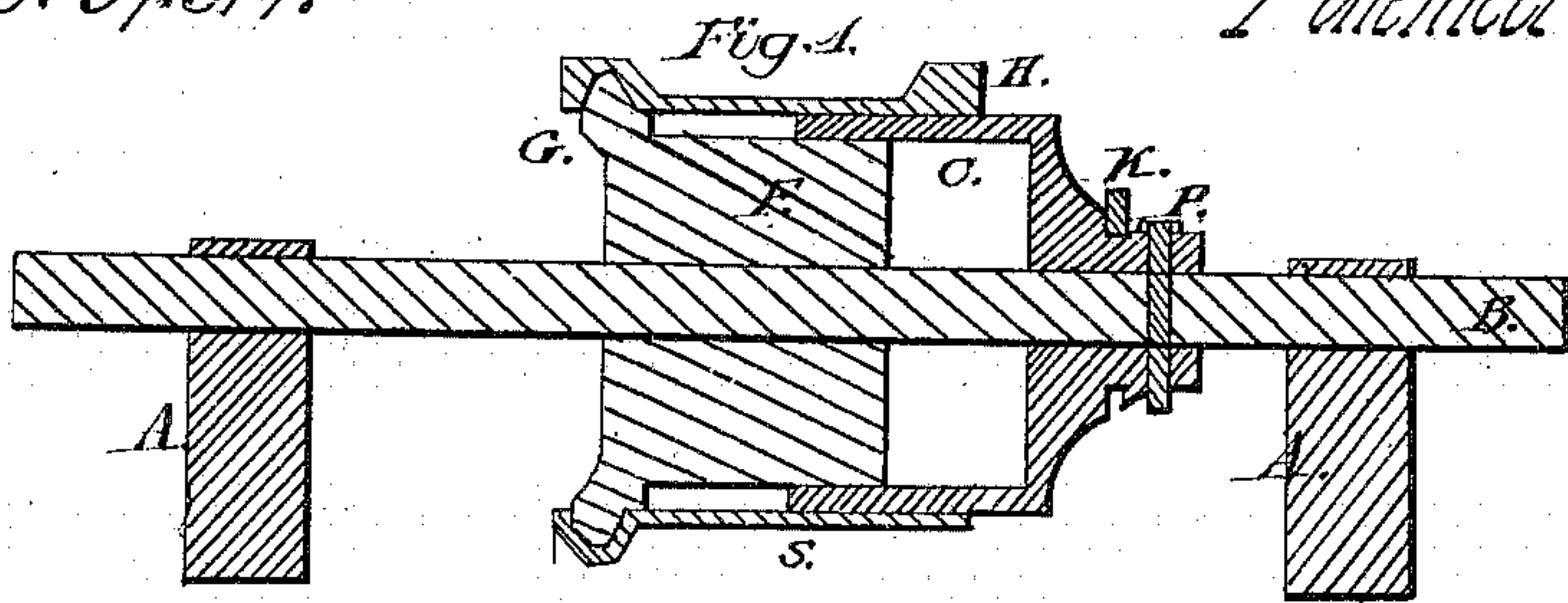


J. S. Rowell,

Seeder.

No. 97,317.

Patented Nov. 30. 1869.



Witnesses:
Andrew M. Queen
A. J. Hibbard

Inventor:
J. S. Rowell
by G. D. Chapin
Attorney

UNITED STATES PATENT OFFICE.

J. S. ROWELL, OF BEAVER DAM, WISCONSIN.

IMPROVEMENT IN SEEDERS.

Specification forming part of Letters Patent No. 97,317, dated November 30, 1869.

To all whom it may concern:

Be it known that I, J. S. ROWELL, of Beaver Dam, in the county of Dodge and State of Wisconsin, have invented an Improvement in Seeders; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, and letters marked thereon, making a part of this description, in which—

Figure 1 is a longitudinal section; Fig. 2, a perspective representation of my improved seeder; Fig. 3, a perspective representation of the ordinary bucketed cylinder, used in combination with the parts improved; Fig. 4, a perspective view of the sliding shell-cylinder, removed from the other parts; Fig. 5, a perspective view of the devices for so adjusting the sliding cylinder on the bucketed cylinder, as to sow any required amount of grain in a given space; Fig. 6, a top view of the case and cylinders. Fig. 7 shows the inward projection of the lower case, forming the throat between the case and cylinders.

The nature of the present invention consists in the novel construction of a shell-cylinder, which is made to slide on the ordinary bucketed or feed cylinder, in order to adjust the feed. Said shell-cylinder having a hub fitted on the line-shaft, and being operated upon by a clutch working in an annular groove, and fastening to an adjustable rod, can be readily set to sow much or little grain, and at the same time have a fixed position, the whole operating in conjunction with a conveniently-arranged case, as hereinafter fully shown.

A hollow cylinder or shell, C, is made the required length and size to slide over the buckets of the ordinary feed-cylinder F, Figs. 1, 3, and 6, and it has stops I, cast to its inner end, to keep grain from passing into it, and a hub, D, fastened to its opposite end, to secure it to a rotating sliding shaft, which is adjustable.

On one end of the feed-cylinder F is a flange, G, Figs. 1 and 3, which projects outward from the buckets E, and so fits into a groove in the case H M, as to have an easy bearing, and revolve therein, and also close one side of the case, and thus prevent grain from passing through. Said case, being made in two parts,

divided at the center of the shaft B, is easily cast the proper form to secure this arrangement.

The opposite side of the case has a circular opening made through it, of such size as will readily allow the shell C to have a reciprocating motion on the feed-cylinder F, parallel with the shaft B, and a suitable opening is made in its top part to allow grain to pass from a hopper above to the feed-cylinder; and the usual opening is made in its bottom part, to allow grain to fall on to the ordinary scattering devices underneath; and the bottom part is so formed as to project inside of the vertical wall *x* of the upper case, Figs. 2, 6, and 7, as seen at M, and thus form a support for the grain, and prevent it from wedging in between the case and cylinders, and in that position broken or ground.

It will be seen from this description that a recess or enlarged space is formed just above the throat M, which will hold considerable grain. This is an important arrangement, for the grain filling the buckets is cut off by the projection M without unnecessary friction, and at the same time readily permits the shell C to be so moved as to shorten or lengthen the buckets, and thereby regulate the quantity of grain passing through.

The means for operating the shell are as follows: A rod, J, Figs. 2 and 5, has bearings in the frame A, and is so arranged, by means of a screw-thread cut on one end, that it may be moved longitudinally with the shaft B, and then held in place with nuts L, turned against the opposite sides of either sill through which it passes. A clutch, K, is rigidly fastened to this rod, and arranged to lock into an annular groove made in the hub D of the shell C. Consequently any longitudinal motion of the rod J will be communicated to the shell.

This manner of constructing the seeder requires but little lathe-work or fitting, for, if the bearings are made loose enough, all parts will readily go together as they come from the sand-box. The cylinders having two bearings each, cannot get out of place; neither will they bind or cramp if the shaft should be somewhat out of line.

It is expected to use four sets of cylinders with their respective cases on one shaft, and for this purpose the latter, together with the

rod J, is made long enough to operate them all, the frame of the seeder, to which they are to be secured, being generally arranged for that number. Only one clutch, K, however, is required for the four.

The bucketed feed-cylinder F, of itself, is not new, but the flange G and its arrangement with the shell C, base H M, and shaft B are not only considered new, but meritorious.

The projections I on the shell have also been used, but with a fixed band or ring.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent of the United States, is—

The sliding shell-cylinder C, constructed with radial slots, and arranged upon the feed-cylinder F and shaft B, so that the adjustment is effected by the horizontal movement of the shell C, while the feed-wheel F remains stationary as regards the case H M.

J. S. ROWELL.

Witnesses:

ANDREW McQUEEN,

I. J. HIBBARD.