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JOHN BOOZER.

Grain and Seed Separator.

No. 122,148.

Patented Dec. 26, 1871.

Fig. 1.

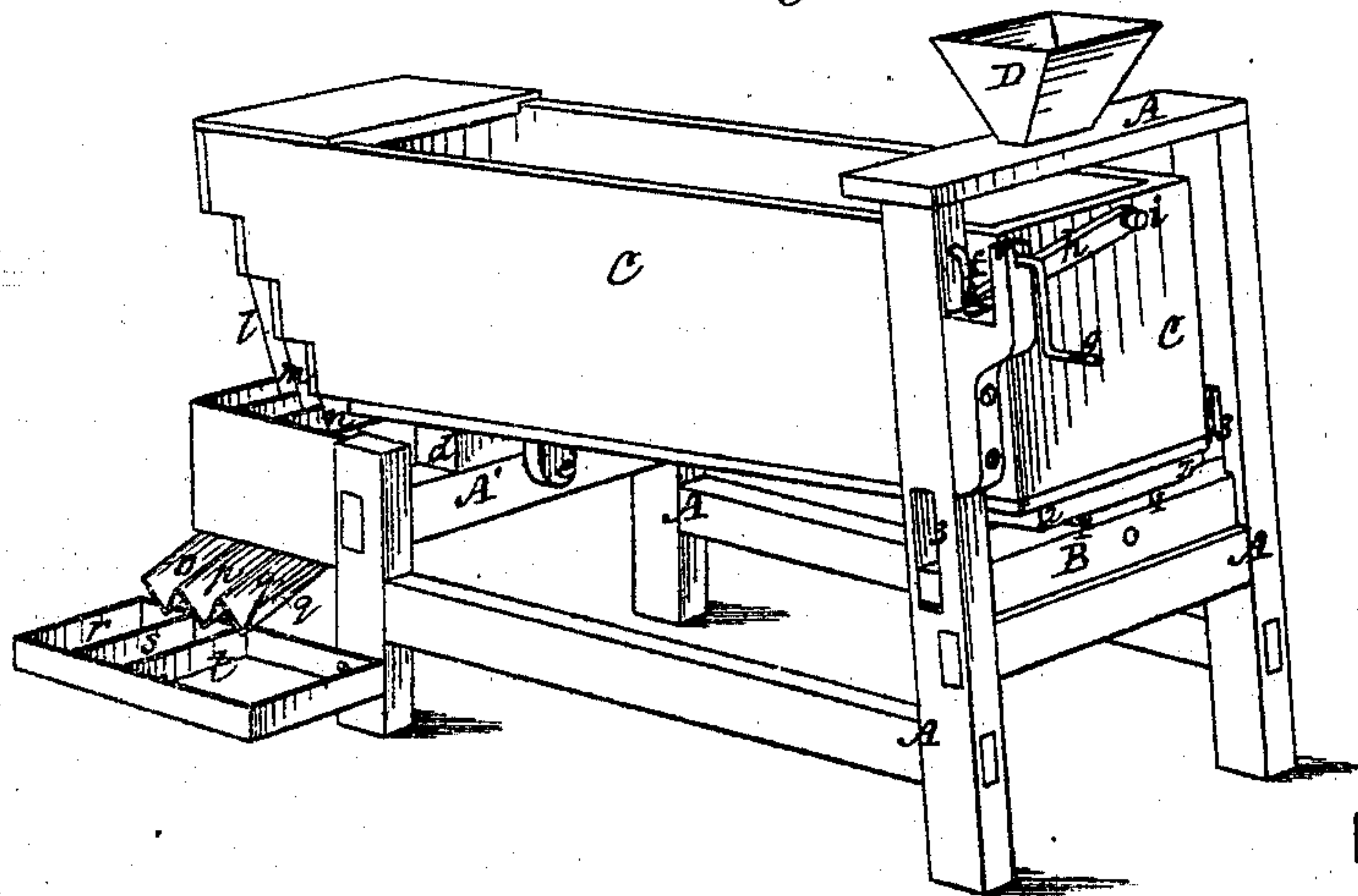


Fig. 2.

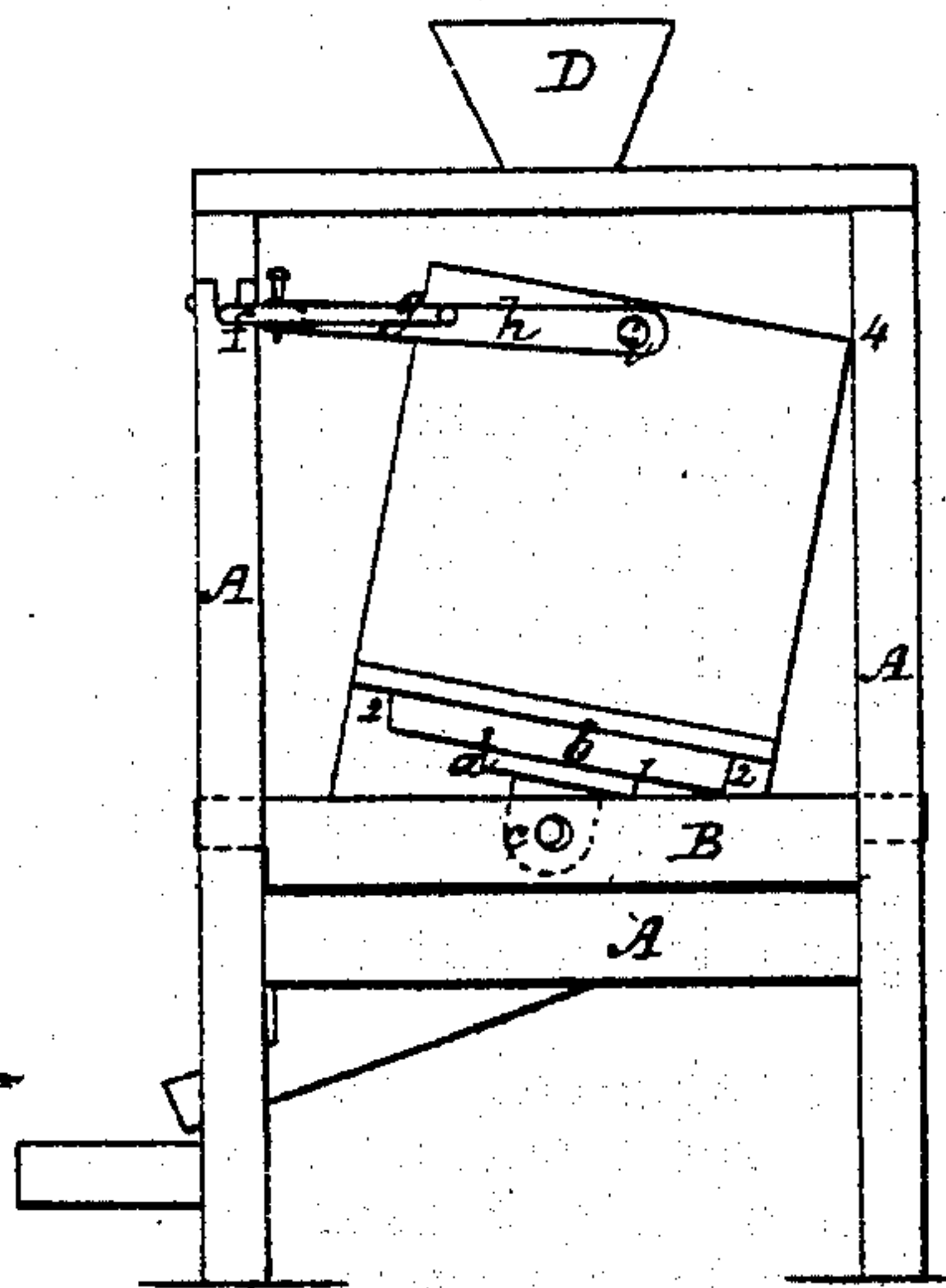
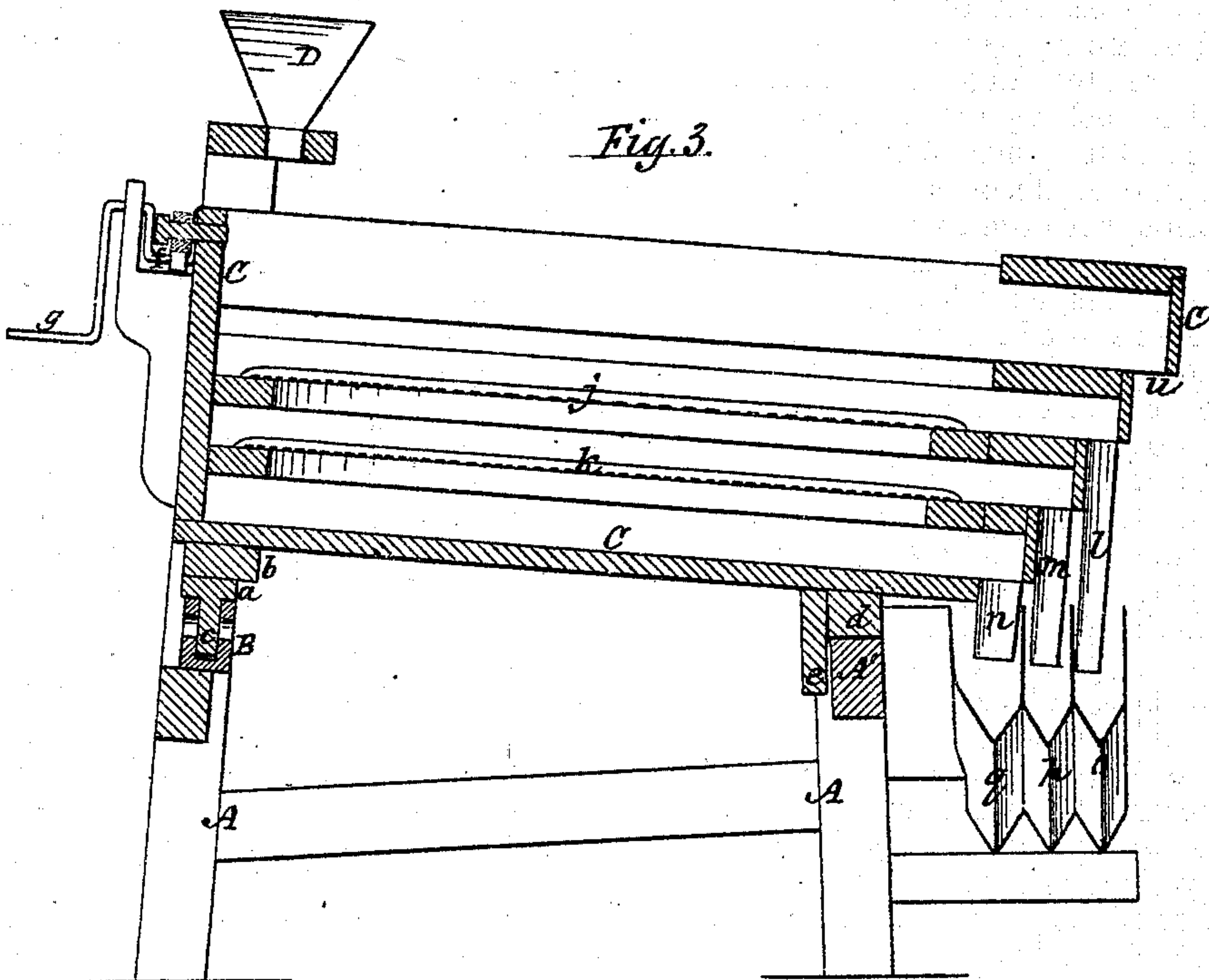


Fig. 3.



Witnesses.

J. R. Nottingham.

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UNITED STATES PATENT OFFICE.

JOHN BOOZER, OF POTTER'S MILLS, PENNSYLVANIA.

IMPROVEMENT IN GRAIN AND SEED SEPARATORS.

Specification forming part of Letters Patent No. 122,148, dated December 26, 1871.

To all whom it may concern:

Be it known that I, JOHN BOOZER, of Potter's Mills, in the county of Centre and State of Pennsylvania, have invented certain new and useful Improvements in Grain and Seed Separating Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents the machine in perspective. Fig. 2 represents an elevation of one of the ends thereof. Fig. 3 represents, on a slightly-enlarged scale, a vertical longitudinal section through the same.

Similar letters of reference, where they occur in the separate figures, denote like parts of the separator in all of the drawings.

My invention relates, first, to a riddle-box, having a combined rocking and knocking or jolting motion given to it by means that are simple, and will be hereafter described; and, second, to the combination, with the rocking and knocking riddle-box, the series of spouts and series of hoppers and deliveries, as will be explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A substantial frame, A, in which, at one of its ends, there is an adjustable bearing piece, B, is made, of any suitable size; and upon this frame and this adjustable bearing piece the riddle or sieve-box or frame C is rocked, knocked, or jolted, as will be explained. To the under side of the riddle-box or frame, at one of its ends, there are two cleats, *a b*, so as to form shoulders 1 2 each side of its center of motion; and the under cleat has upon it a tenon, tongue, or guide, *c*, which takes into a mortise or recess in the adjustable bearing-piece B, said piece being adjustable in the slots 3 3 by means of wedges, pins, or otherwise. The other and lower end of the riddle-box or frame has a cleat or bolster, *d*, underneath it, which cleat or bolster rests upon the top of the cross-piece A' of the main frame; and, moreover, a projection, *e*, on said box prevents the box from slipping downward by its inclination and motion. In the main frame is hung a crank, *f*, which may be turned by a handle, *g*, and to this crank

f one end of a pitman, *h*, is attached, the other end being connected to the riddle-box at *i*.

By turning the crank-shaft *f* the riddle-box is rocked on its bearings, and in rocking it is jarred by the projections 1 2 striking against the bearer B, or by the box itself striking the frame at 4, or by all of them, if so preferred. The bolster *d*, by the rocking of the box or frame, also gives it a sudden jar at each end of its rocking motion.

In the riddle-box or frame C may be placed any suitable number of graduated riddles *j k*, each riddle having its own respective passage or spout *l m*, to pass off or pass out its own separated material. There is also a spout, *n*, for the material that passes through all of the riddles; and the spouts *l m*, and *n*, respectively, deliver the assorted or separated grain or seeds into the inclined spouts *o p q*, whence it runs into separate bins, boxes, or parcels at *r s t*.

By regulating the throw of the crank *f* the riddle-box or frame may be made to strike at one only of the shoulders, or at two or more, as may be found to suit best the condition of the grain or seed being separated; and by raising or lowering the bearer B more or less inclination may be given to the riddle-box or frame C, and so increase or diminish the speed with which the material being separated shall pass over the riddles and out of the separator.

The material to be separated may be thrown into the hopper D, and, by means of a primary screen underneath it, the coarser impurities may be run out of the riddle-box at *u*. If, however, the coarser impurities are first separated from the grains and seeds, then this primary screen need not be used, the riddles separating and delivering the grain or seeds in assorted qualities.

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

In combination with the riddle-box C, the crank *f*, bolster-connections *a b c d*, and shoulders 1 1 and 2 2, for giving to said riddle-box a combined rocking and jarring motion, substantially as and for the purpose described.

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Witnesses:

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