

No. 735,788.

J. MAJOR.

PATENTED AUG. 11, 1903.

APPARATUS FOR FACILITATING THE PICKING OR SORTING OF
DRIED PEAS OR THE LIKE.

APPLICATION FILED MAR. 3, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 1.

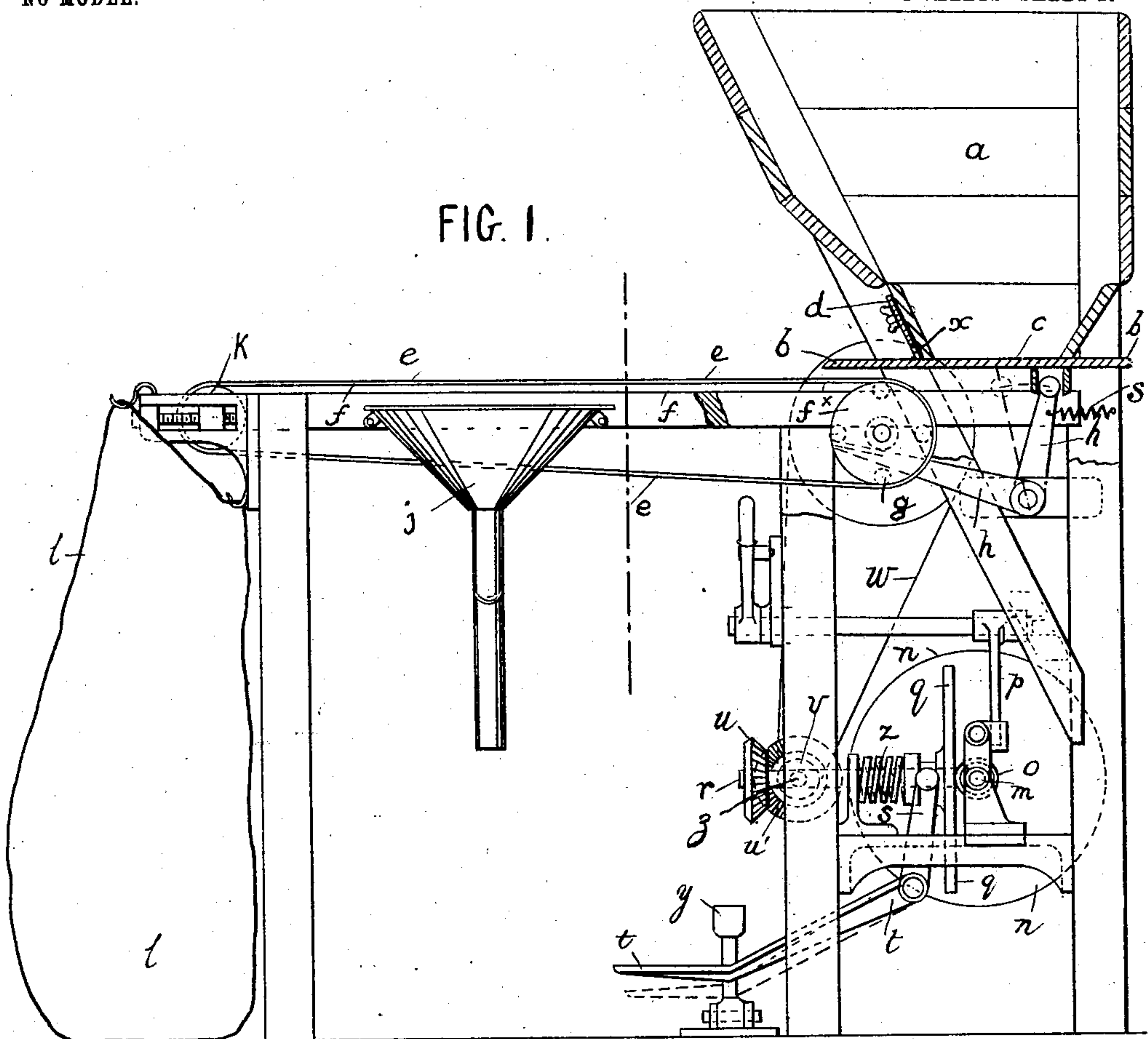
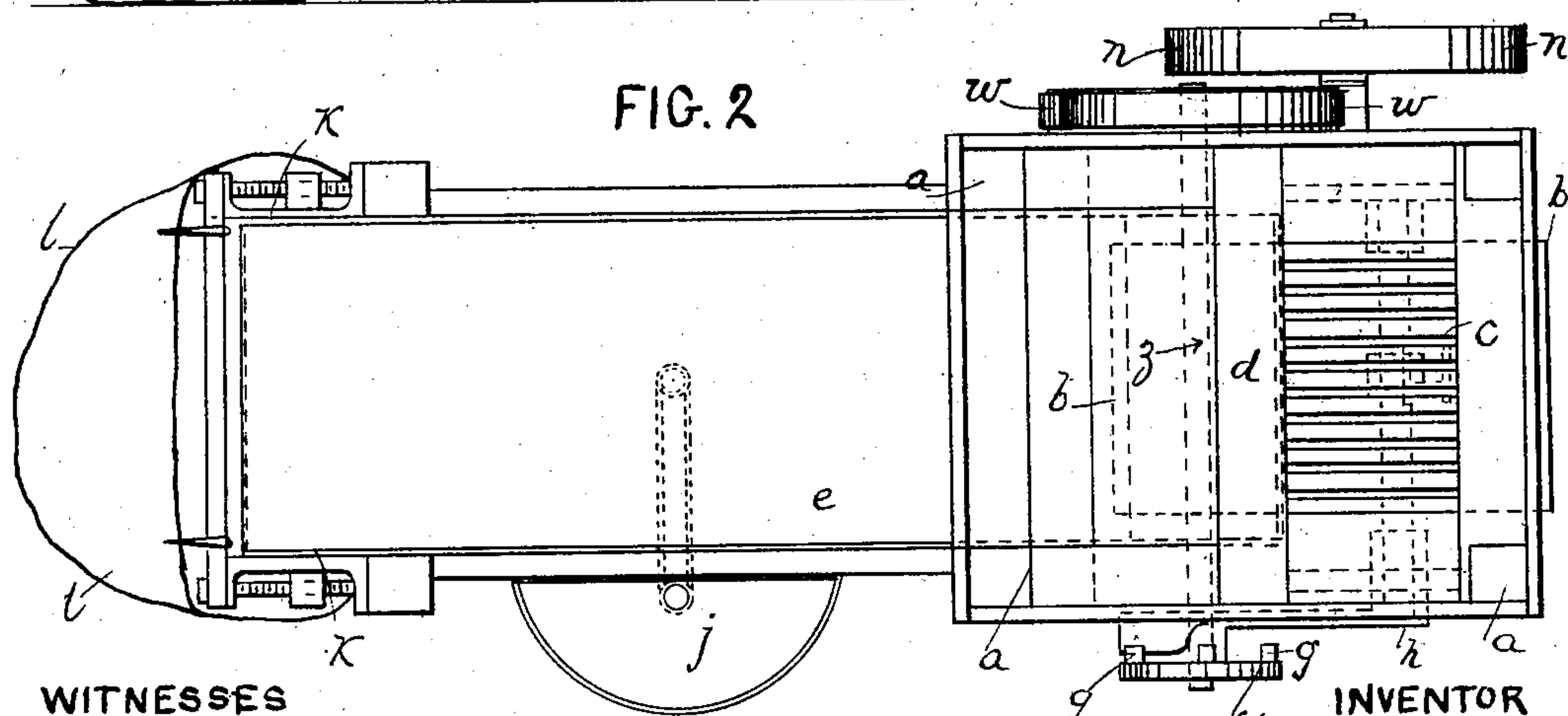


FIG. 2



WITNESSES

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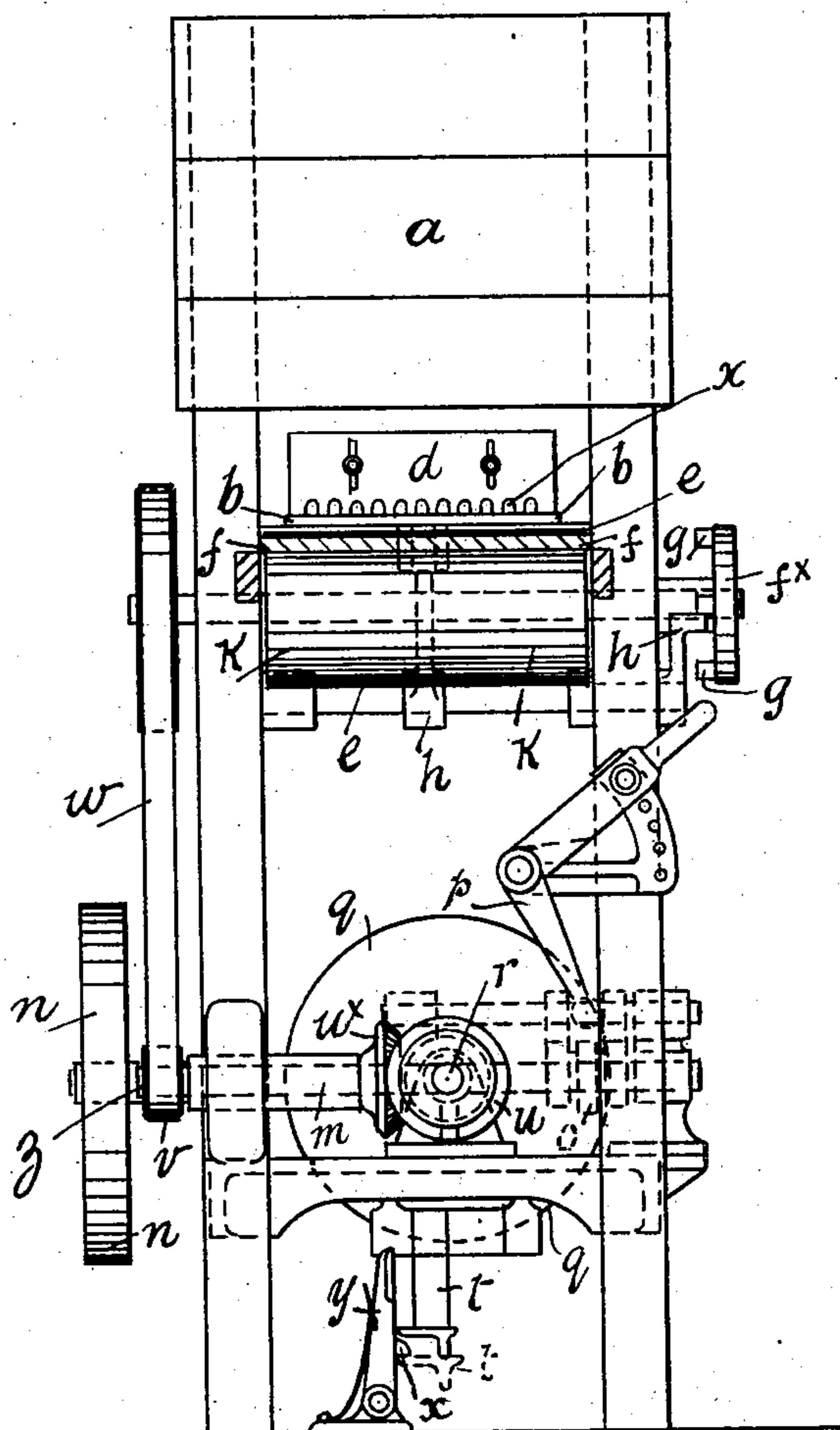
APPARATUS FOR FACILITATING THE PICKING OR SORTING OF
DRIED PEAS OR THE LIKE.

APPLICATION FILED MAR. 3, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

FIG. 3



WITNESSES:

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JAMES MAJOR

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UNITED STATES PATENT OFFICE.

JAMES MAJOR, OF ECCLES, ENGLAND.

APPARATUS FOR FACILITATING THE PICKING OR SORTING OF DRIED PEAS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 735,788, dated August 11, 1903.

Application filed March 3, 1903. Serial No. 146,009. (No model.)

To all whom it may concern:

Be it known that I, JAMES MAJOR, a subject of the King of Great Britain and Ireland, residing at 28 Cannon street, Eccles, in the county of Lancaster, England, have invented new and useful Apparatus for Facilitating the Picking or Sorting of Dried Peas or the Like, of which the following is a specification.

This invention relates to the construction of apparatus for facilitating the picking or sorting by hand of dried peas and the like. This operation is usually performed entirely by hand, the operator taking a handful of the peas or other seeds or the like, spreading them upon a table, picking out or sorting therefrom the decayed or imperfect ones, and then, by hand, distributing the assorted peas or the like and the refuse into separate receptacles.

My invention consists of an apparatus designed for facilitating and expediting this hand-picking or sorting operation.

The manner in which my said invention is to be performed or carried into practical effect will be readily understood on reference to the sheets of drawings hereunto annexed and the following explanation thereof.

Figure 1 on the drawings is a front elevation; Fig. 2, a plan view; and Fig. 3 is a section through about the line A A, Fig. 1, of my improved apparatus.

The apparatus consists principally of a hopper *a*, in which the peas (or the like) to be picked or sorted are placed and fall from a narrow slit or opening in the lower part or mouth thereof onto a distributing-board *b*, which is provided with a grid *c*, through which dust and small broken particles of husk, &c., fall into any suitable receptacle placed beneath. To this distributing-board *b* a to-and-fro motion (slow forward and quick backward) is imparted, which carries the peas (or the like) forward through an adjustable fixed distributing grid or guard *d*, made of metal with openings *x* of a suitable size (see Fig. 3) and causes them to fall slowly and evenly over the edge of the board *b* onto an endless traveling cloth or apron *e*, which moves them slowly forward over a sorting-table *f*, placed at a lower level than the distributing-board *b*. The slow forward and quick backward motion may be given to the distributing-board *b* by any convenient mechanical means—such,

for example, as a disk *f*^x, provided with studs *g*, acting against one arm of a bell-crank lever *h*, the other arm of which moves the board *b* slowly forward, and when the stud escapes from the lever the board is returned quickly backward by means of a spring *s* or a counterbalance-weight. As the traveling cloth or apron *e*, with the peas (or the like) on it, moves slowly forward the attendant picks or sorts out the imperfect or decayed ones or refuse and draws them sidewise off the cloth into a hopper or funnel *j*, which conveys them into a receptacle beneath the table *f*, while the assorted peas (or the like) are carried forward slowly by the apron *e* and fall over the roller *k* at the end of the apparatus into a sack *l* or into a box or other suitable receptacle.

Various ways of controlling the revolution of the rollers *k* and other parts of the mechanism may also be employed, one arrangement which I found to work satisfactorily being illustrated on the drawings, *m* being the first driving-shaft, on one end of which is keyed the driving-pulley *n*, which is actuated by a belt from any convenient shafting. On this shaft *m* is mounted a bowl *o*, which revolves with it, but is capable of sliding on a long feather or key, so that it can be moved by a lever *p* nearer to or farther from the center of the disk *q*, with which it is in contact and which it drives, so that the speed of this disk can be varied as required. The disk *q* is mounted at or near one end of a second motion-shaft *r*, also on a key, so as to be capable of being moved into or out of contact with its driving-bowl *o* by means of a lever *s* and pedal *t*. At the other end of the shaft *r* is keyed a bevel-wheel *u*, driving a similar wheel *u*^x, keyed on the third motion-shaft *y*, which carries a pulley *v*, driving one of the rollers *k* by means of a belt *w*. When it is desired to stop the action of the machine, the attendant places his foot on the pedal *t* and depresses it, as shown by the dotted lines, which causes the lever *s* to withdraw the disk *q* out of contact with the revolving bowl *o*, thus stopping the revolution of the second motion-shaft *r*. When the pedal *t* is depressed, as aforesaid, it comes below a tooth *x* on a spring-catch lever *y*, (see Fig. 3,) which holds the disk *q* out of contact until the at-

tendant pushes the lever *y* sidewise with his foot so as to release the pedal, when the coiled spring *z*, Fig. 1, pushes the disk *q* again into contact with the driving-bowl *o*, which then sets the working parts of the machine again in motion.

I claim as my invention—

1. A machine for use in sorting peas or the like, comprising a frame, a hopper open at its lower end and fixed to the frame, a reciprocating bottom for the hopper projecting on both sides of the open bottom, openings in the forward side of the hopper above the reciprocating bottom, and means for imparting a slow motion to said bottom while moving in one direction and a fast motion while moving in the other direction to force the peas out through said openings, in combination with an endless traveling apron below said openings on which the peas fall, substantially as described.

2. A machine for sorting peas or the like, comprising a frame, a hopper open at its lower end and fixed to said frame, an adjustable plate having openings, in the forward side of the hopper, and a reciprocating bottom to said hopper beneath its open end, in

combination with an endless traveling apron below said openings, substantially as described.

3. A machine for use in sorting peas or the like, comprising a hopper, openings in the forward side thereof, a reciprocating bottom therefor, a bell-crank-operating lever and means to operate it slowly in one direction and rapidly in the other, said means comprising a disk having studs, pulleys and bevel-wheels and their shafts to operate said disk, a spring-pressed disk on a bevel-wheel shaft and a lever to operate it, a main shaft, a bowl slidable on said main shaft and adapted to bear against said spring-pressed disk to operate it, in combination with an endless traveling apron to which the peas are delivered by said reciprocating bottom, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES MAJOR.

Witnesses:

J. W. HUGHES,
J. ERNEST HUGHES.