(No Model.)

W. G. SUYDAM.

MACHINE FOR SORTING GREEN PEAS.

No. 261,062. Patented July 11, 1882.

Fig. 1

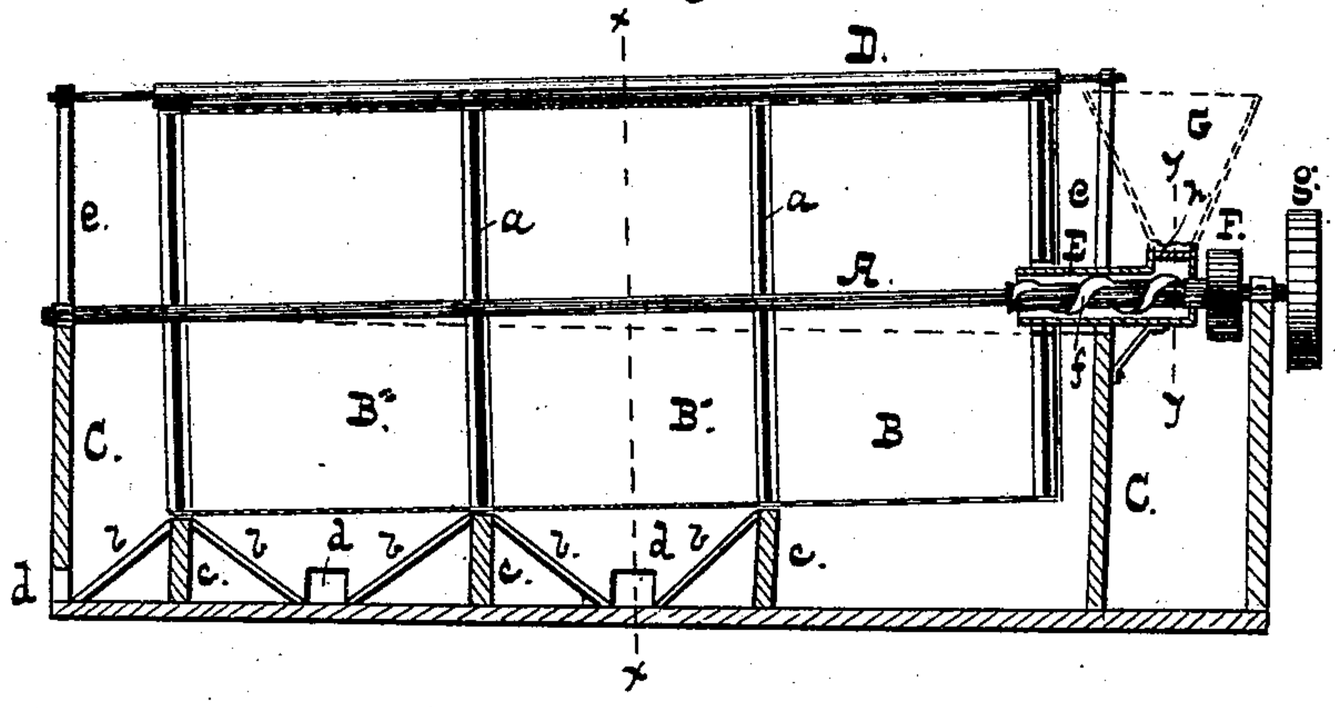


Fig. 2

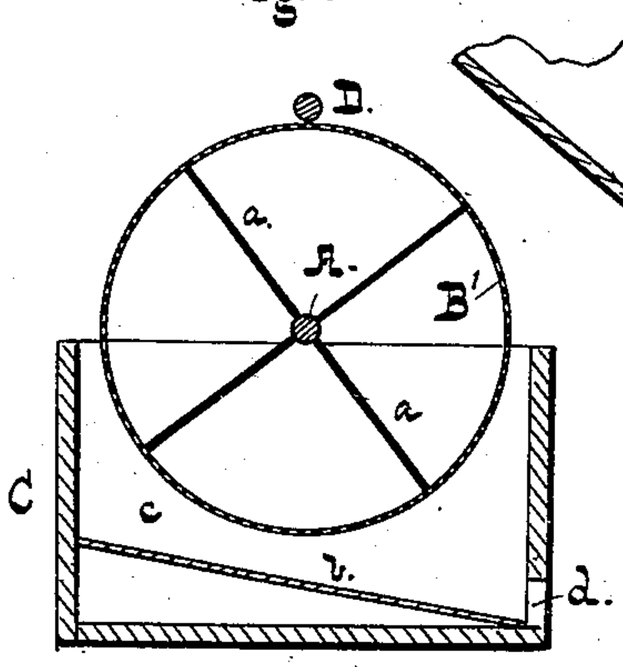
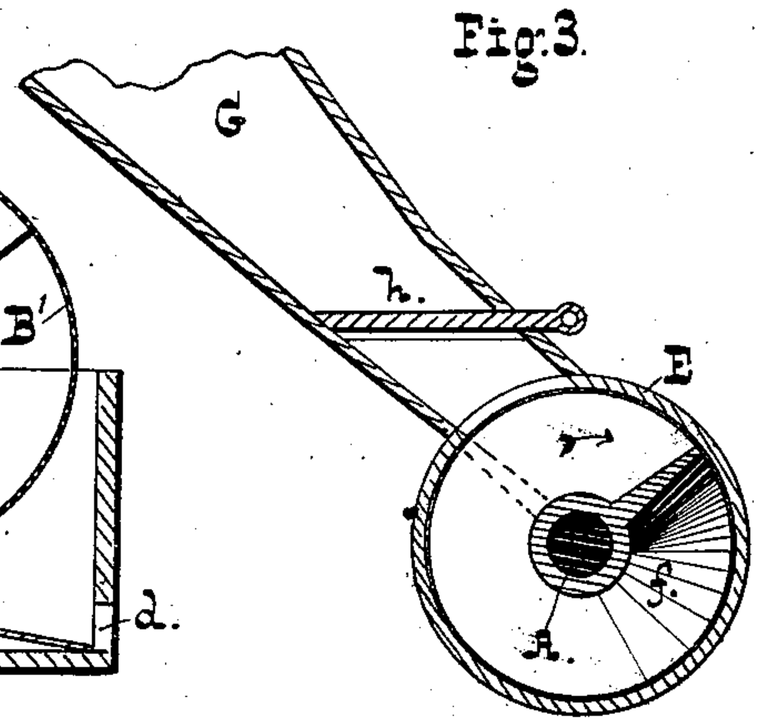


Fig. 3.



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MACHINE FOR SORTING GREEN PEAS.

SPECIFICATION forming part of Letters Patent No. 261,062, dated July 11, 1882.

Application filed May 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. SUYDAM, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Machines for Sorting Green Peas; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a central longitudinal sectional view of the device. Fig. 2 is a transverse sectional view on the line *x x* of Fig. 1; and Fig. 3 is a similar view, on an enlarged scale, on the line *y y* of same figure.

My invention relates to devices for separating the larger peas from the smaller ones preparatory to the processing step in canning this vegetable. It is desirable for many reasons that the shelled peas be sorted as to size, as the smaller ones command a higher price than the larger, and do not require so long an immersion in the process-chamber as the latter. Besides, the appearance of the article is greatly improved by separating the peas, which differ greatly in size.

It is obviously of the last importance in sorting the peas that they shall not be subjected to excessive agitation, as that would result in bruising them more or less, or perhaps in splitting some of the peas. I have devised a machine in which the peas are fed uniformly to a surface on which they are simply caused to roll, the said surface being provided with openings through which the smaller peas fall.

In the drawings, A is a shaft, having a series of radial arms, *a a*, which support a cylindrical screen, B B′ B″. This screen is composed of perforated metal plates, the part B having long narrow slots and the other parts circular holes. The holes in the section B″ are larger than in the section B′, and any number of sections having perforations progressing in size, as described, may be joined together. The cylinder is slightly inclined, and the shaft A is mounted in bearings in a casing, C, subdivided by partitions *c* at the meeting-edges of the sections of the cylinder. The floors *b* of each chamber are pitched toward a door, *d*.

Standards *e e* at either end of the casing support a roller, D, that bears on the outer surface of the cylinder, and is designed to press back into the cylinder any peas which may stick in the holes.

E is a casing, within which turns a screw-conveyer, *f*, mounted on the shaft A; and G is a hopper arranged to deliver the peas to the casing E, a slide, *h*, being designed to regulate the flow or cut it off entirely, as desired.

The lower end of the hopper enters the casing E tangentially to the casing and in the direction of the turn of the conveyer, as shown by the arrow, and this is a most important point, as the peas strike the blade of the conveyer in the direction of its own motion, lessening the force of the impact and wholly obviating all danger of the peas being cut or bruised by the conveyer.

Pulleys F and *g*, over which suitable belts are led, serve to drive the conveyer and cylinder.

In operation, these parts being set in motion, the shelled peas are fed to the hopper, and run thence into the conveyer-casing, whence they are fed to the cylinder, falling upon the section B. As above stated, the holes in this section are in the form of narrow slots, and they are so made in order to permit the passage of pieces of pod and tendril, of dirt, and of the smallest and worthless peas. This section, in a word, is designed to get rid of the refuse material. The peas roll down the cylinder upon the section B′, through the holes in which the small peas fall, and are discharged into a suitable receptacle through the door *d*. Any peas which are small enough to enter the holes, but stick therein without passing through, are carried up under the roller D, which presses them back into the cylinder, causing them to fall at a point lower down than that at which they entered the holes, so that they are fed down the cylinder and enter the next section, through the holes in which they readily pass.

The salient feature of my invention is the peculiar feed-motion; not, of course, a conveyer-feed broadly, for that is very old, as is also the general principle of separation by means of revolving screens of progressively-increasing mesh.

The ordinary conveyer-feed—such as is seen

in sausage-machines and analogous devices--would be probably the worst possible form of device for feeding green peas, as its use would inevitably result in bruising, splitting, and crushing the peas; but my peculiar feed—*i. e.*, one having a tangential inlet spout—is found to answer every requisite.

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

In a machine for sorting green peas, the combination, with the revolving screen, of the conveyer-feed having an inlet-spout tangential or inclined to the casing, and opening into the same in the direction of the turn of the conveyer, substantially as described.

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