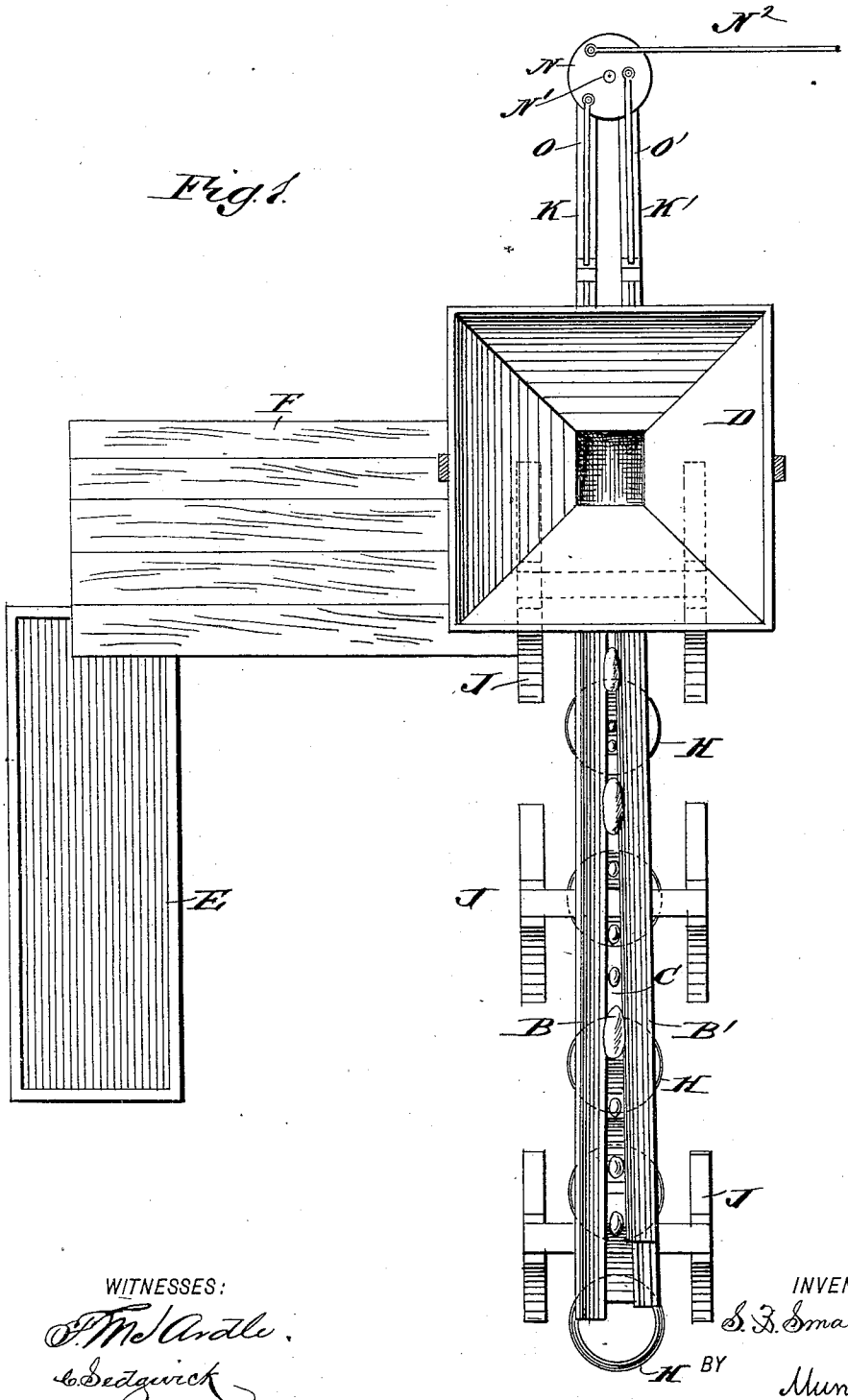
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S. B. SMALLWOOD.

ASSORTING MACHINE.

No. 425,705. Patented Apr. 15, 1890.

Fig. 1.



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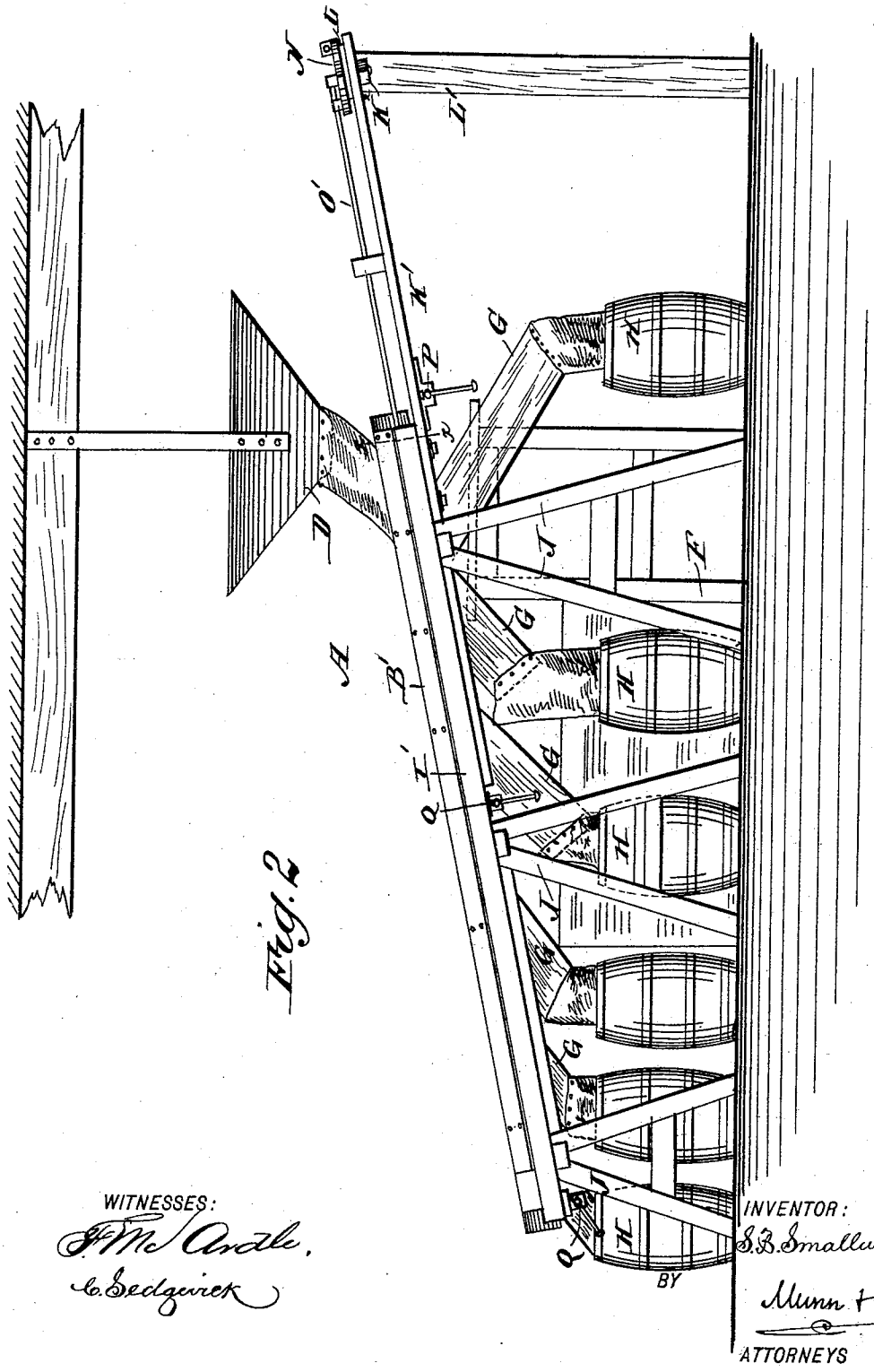


Fig. 2.

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Fig. 3

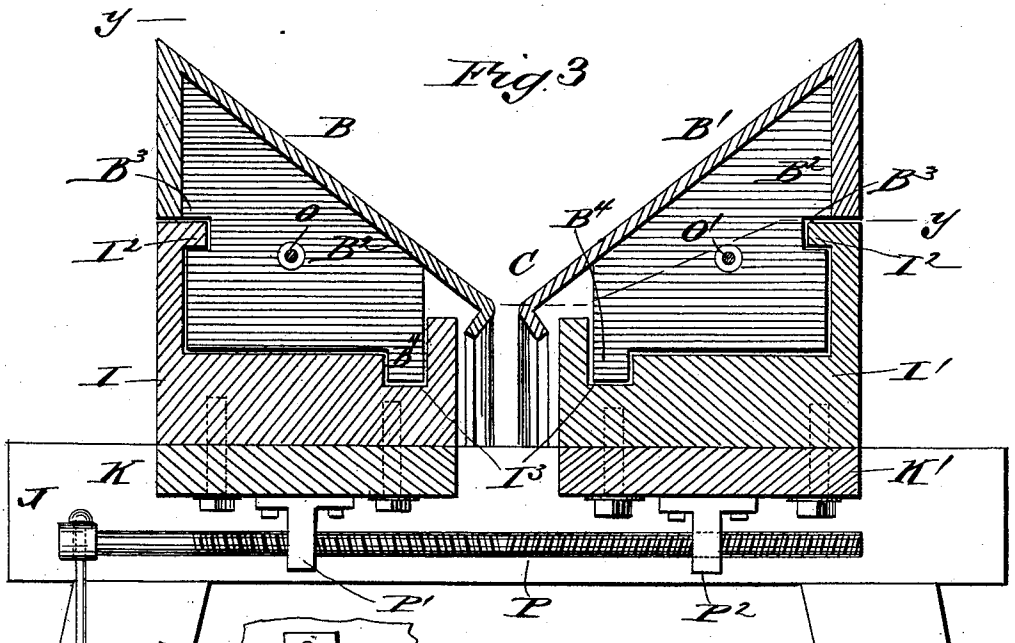
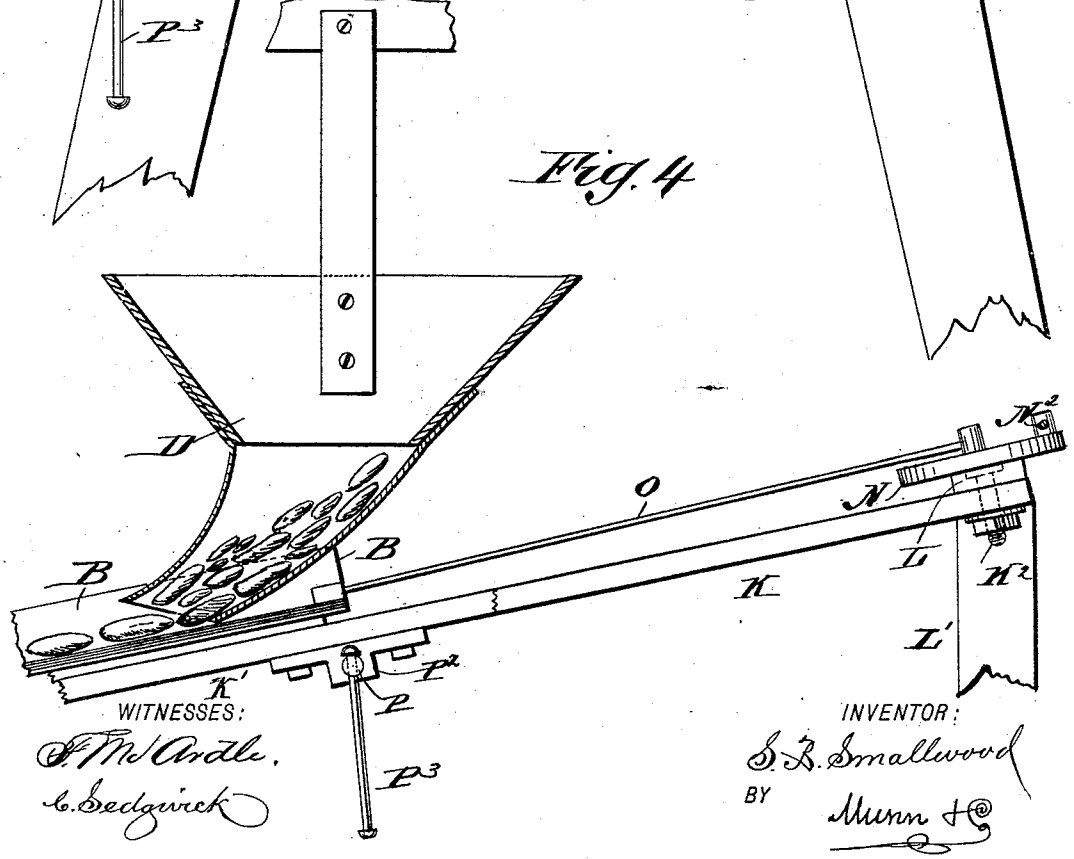


Fig. 4



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S. B. SMALLWOOD.

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Fig. 5

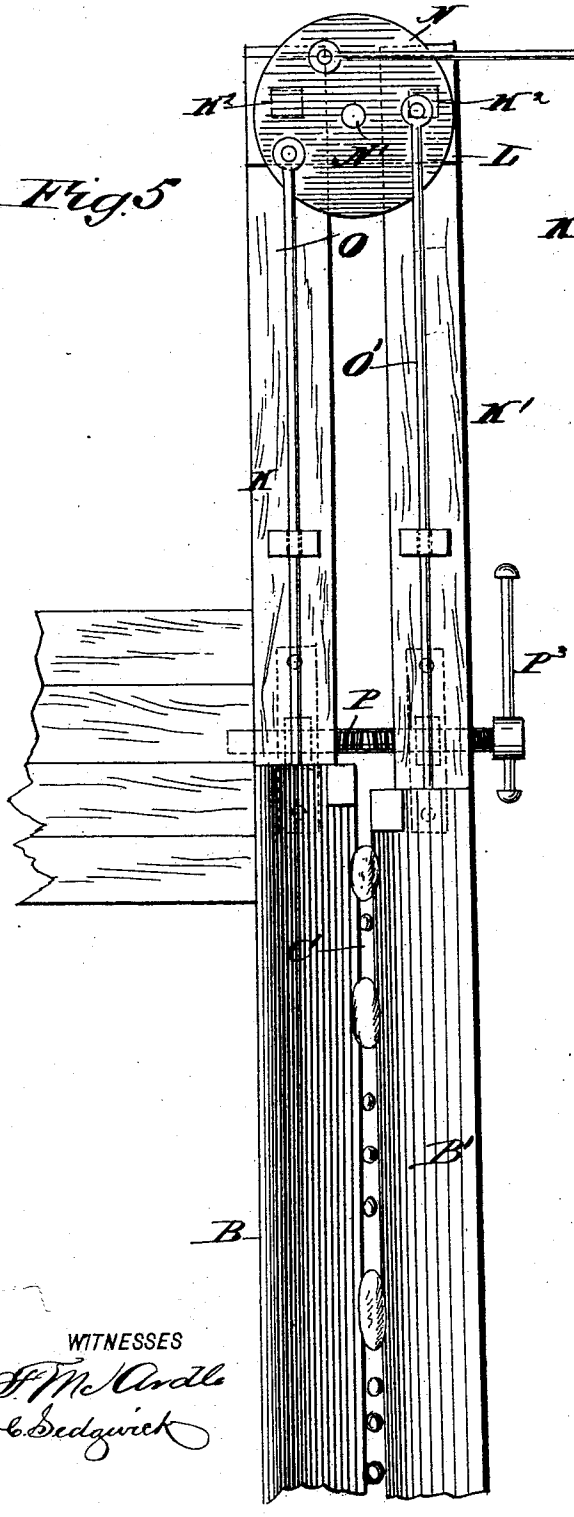
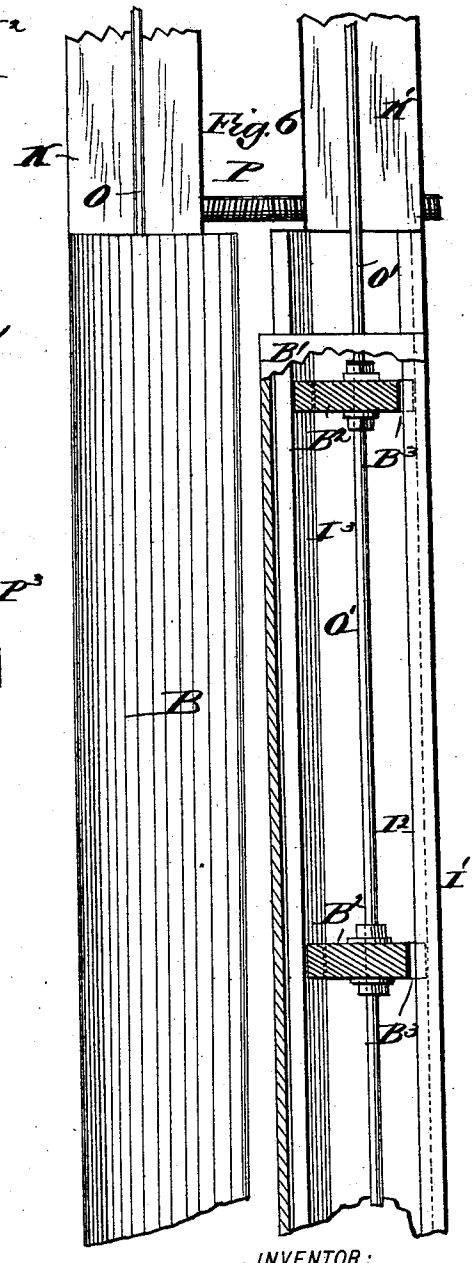


Fig. 6



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL B. SMALLWOOD, OF LONG ISLAND CITY, NEW YORK.

ASSORTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 425,705, dated April 15, 1890.

Application filed January 30, 1890. Serial No. 338,643. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. SMALLWOOD, of Long Island City, (Astoria,) in the county of Queens and State of New York, have invented a new and Improved Assorting-Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved machine for conveniently and automatically assorting pickles and other articles.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged transverse section of the same on the line *x x* of Fig. 2. Fig. 4 is an enlarged side elevation of the upper ends of the slides and their reciprocating mechanism, with the feed-hopper in section. Fig. 5 is a plan view of the same with the feed-hopper removed, and Fig. 6 is a reduced sectional plan view of the slides on the line *y y* of Fig. 3.

The improved pickle-assorting machine A is provided with two slides B and B′, set at angles to each other to form a channel and arranged at their inner edges a suitable distance apart, so as to form a longitudinal slot C, which is narrow at the upper ends of the slides and gradually increases in width toward the lower ends, as is plainly shown in Figs. 1 and 5. The pickles to be assorted pass into the channels formed by the slides B and B′ at or near their upper ends from a hopper D, into which the pickles are placed by the operator standing on a platform F and manipulating a net for gathering the pickles from the brine in a tank E and tipping them from the said net into the hopper D, which delivers the same onto the upper ends of the slides B′ and B. The pickles, after dropping through the slot C, pass into downwardly-extending chutes G, leading to barrels H, so that pickles of one size accumulate in each barrel, according to the size of the slot at the point connecting with the respective chute G of each barrel.

The slides B and B′ are mounted to slide in suitable guideways I and I′, each of which is provided with a longitudinal flange I^2, engaging a correspondingly-shaped groove B^3, formed in the outer sides of the blocks B^2, secured at suitable intervals to the under side of the slides B and B′, as is plainly shown in Figs. 3 and 6. Each of the guideways I and I′ is also provided in its bottom with a longitudinal groove I^3, adapted to be engaged by a correspondingly-shaped offset B^4 on the under side of each block B^2. Thus the slides B and B′ are held in place and guided in their respective guideways I and I′. The guideways I and I′ are held to slide transversely on suitably-constructed horses J of different heights, so as to hold the guideways in an inclined position, as shown in Fig. 2. The upper ends of the guideways I and I′ are rigidly connected at their under sides with bars K and K′, respectively pivoted near their outer ends at K^2, to a plate L, supported on a post L′. By this means the guideways I and I′ can be swung toward or from each other, so as to form by the slides B and B′ a slot C, which gradually increases in width from the upper ends of the said slides to their lower ends. On the plate L is also formed between the bars K and K′, a pivot N′, on which turns a disk N, connected by a link N^2 with suitable machinery for imparting a reciprocating motion to the said disk N. The latter is also pivotally connected with two rods O and O′, rigidly secured to one of the blocks B^2, fastened to the slides B and B′, as previously mentioned. Thus when the disk N is reciprocated a reciprocating motion is imparted by the rods O and O′ to the slides B and B′ in such a manner that when one of the slides moves downward the other moves upward, and vice versa.

In order to hold the guideways I and I′ in the proper position when the desired slot C has been obtained, or to change the width of the said slot, a transverse screw-rod P is provided having a right and left handed thread engaging nuts P′ and P^2, secured to the under side of the plates K and K′. On one outer end of the screw-rod P is secured a handle P^3,

for conveniently turning said screw-rod P, so that the plates K and K′ and the guideways I and I′, secured to the said plates K and K′, move simultaneously toward or from each other, according to the direction in which the screw-rod P is turned. As the slides B and B′ and their guideways I and I′ are of considerable length, it is necessary to connect the middle and lower ends of the guideways I and I′ with each other, and this has been done by screw-rods Q, similar in construction to the screw-rod P, previously mentioned, such screw-rods Q being operated in conjunction with the screw-rod P and in the same manner as the latter.

The operation is as follows: The disk N is set in motion as above described, so that a reciprocating motion is imparted to the slides B and B′ moving in opposite direction on the guideways I and I′. The pickles, passing from the hopper D onto the upper ends of the slides, are forced down the latter by the continuous reciprocating motion of the two slides. Very small pickles will pass through the slot C near the upper ends of the slides B and B′, as the said slot is narrowest there, and these pickles pass into the uppermost chute G, and from the latter are deposited in the first barrel H. The pickles slide down the slides B and B′ until they pass through the slot C into the chutes below the slot, to be deposited in the respective barrels. As the slot C increases in width toward the lower end, the largest pickles will be deposited in the outermost barrel H. Thus the pickles are assorted on their passage down the slides B and B′ by passing through the slot C at a point in which the slot is of the same width as the size of the pickle. It will be further seen that by this arrangement the operator does not touch the pickles directly with his hand, and at the same time the pickles are not in the least injured by the process of assorting, as above described.

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

1. The combination, with two spaced inclined guideways pivoted at their upper ends and diverging toward their lower ends, of reciprocating slides upon said guideways, substantially as set forth.

2. The combination, with two spaced inclined guideways pivoted at their upper ends, a transverse adjusting-screw connecting said ways to increase the divergence at their lower ends, of reciprocating slides upon said guideways, substantially as set forth.

3. In an assorting-machine, the combination, with two inclined guideways pivoted at their upper ends and means for adjusting the said guideways transversely, of slides mounted to travel on the said guideways and having a reciprocating motion in opposite directions, substantially as shown and described.

4. In an assorting-machine, the combination, with two inclined guideways pivoted at their upper ends and means for adjusting the said guideways transversely, of slides mounted to travel on the said guideways and having a reciprocating motion in opposite directions, and chutes leading from the bottom of the said guideways, and into which chutes drop the pickles passing through the slot formed by the said slides, substantially as shown and described.

5. In an assorting-machine, the combination, with two inclined guideways pivoted at their upper ends and means for adjusting the said guideways transversely, of slides mounted to travel on the said guideways and having a reciprocating motion in opposite directions, chutes leading from the bottom of the said guideways, and into which chutes drop the pickles passing through the slot formed by the said slides, and a hopper discharging onto the upper ends of the said slides, substantially as shown and described.

SAMUEL B. SMALLWOOD.

Witnesses:
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CHAS. W. HALLETT.