No. 799,468. PATENTED SEPT. 12, 1905.

J. J. JUNGERS.

BEAN SORTING MACHINE.

APPLICATION FILED MAR. 21, 1904.

2 SHEETS—SHEET 1.

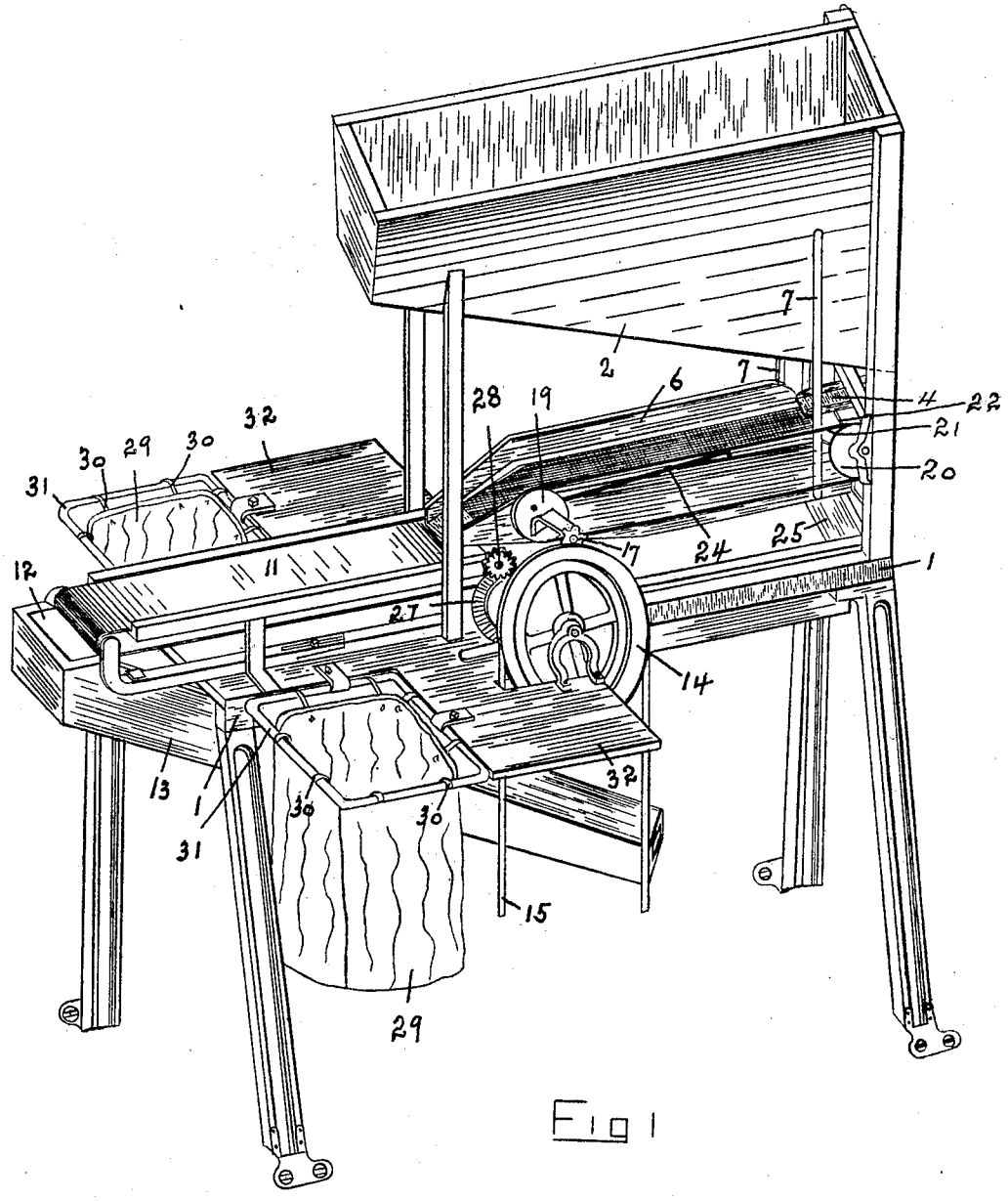


Fig 1

WITNESSES:
J. W. Partridge
W. T. Miller.

INVENTOR.
JOHN J. JUNGERS
BY
W. T. Miller
ATTORNEY.

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

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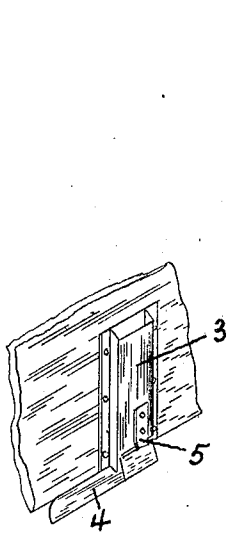


Fig 4

Fig 2

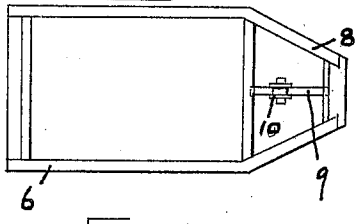


Fig 3

WITNESSES:

J. W. Pellapiece

E. T. Miller

INVENTOR.

JOHN J. JUNGERS

BY

W. T. Miller

ATTORNEY.

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN J. JUNGERS, OF WETHERSFIELD, NEW YORK.

BEAN-SORTING MACHINE.

No. 799,468 Specification of Letters Patent. Patented Sept. 12, 1905.

Application filed March 21, 1904. Serial No. 199,241.

To all whom it may concern:

Be it known that I, JOHN J. JUNGERS, a citizen of the United States, residing at Wethersfield, in the county of Wyoming and State of New York, have invented certain new and useful Improvements in Bean-Sorting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in bean-sorting machines, its object being to provide an improved construction, arrangement, and combination of parts whereby the beans are quickly and effectively separated from the foreign particles, each being separately conducted to receptacles prepared for their reception.

To that end my invention consists of certain arrangements and combinations of parts, all of which will be fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my complete machine. Fig. 2 is a rear elevation of the same. Fig. 3 is a detached detail of the frame of the vibrating screen, and Fig. 4 is a similar view of the vibrating chute attached to the outlet of the hopper.

Referring to the drawings, 1 is the frame which carries the working parts. 2 is the hopper mounted in such frame and into which the mass to be separated is placed.

3 is the outlet to the hopper, located at the lower end of its rear wall.

4 is the vibrating chute secured to the outlet 3 by the flexible connecting-strip 5, the chute extending under the hopper in an inclined direction, as shown.

6 is the vibrating screen, its rear end being suspended from the hopper 2 by the pivoted hangers 7 7, its forward end 8 being provided with the rail 9, (see Fig. 3,) which rides upon the friction-wheel 10, mounted on the frame.

11 is an endless carrier extending from the vibrating screen to the upper open end 12 of the chute 13, into which the separated beans are discharged.

The motive parts for operating the elements just described are arranged as follows: 14 is the drive-wheel operated by the belt 15, which leads to the motor. (Not shown.) Rigid with the drive-wheel 14 is the gear-wheel 16, which intermeshes with the smaller gear-wheel 17, mounted on the shaft 18. At the other end of this shaft is mounted the pulley 19, and 20 is another pulley mounted at the rear of the frame. The belt 21 serves to revolve the pulley 20, and with it the attached shaft 22, in the center of which is the bend 23, directly under the flexible chute 4. As this bend 23 revolves it raps the chute, which causes it to vibrate and loosen the contents of the hopper at its outlet 3. An eccentric-rod 24, secured at one end to the pulley 19 and at its other end to the screen 6, causes such screen to vibrate back and forth on its bearings. Underneath the vibrating screen 6 is the drawer 25 for catching the foreign particles which pass down through such screen. 26 is a gear rigid with the drive-wheel and intermeshing with the horizontal gear 27, which in turn intermeshes with the gear 28, mounted on a shaft which carries a roller (not shown) for operating the endless carrier 11.

In operation the beans to be cleaned or separated are placed in the hopper 2 and pass down the outlet 3 into the flexible chute, which is rapped or vibrated by the revolving bend 23 in the shaft 22. The contents of the hopper drop from the chute 4 onto the vibrating screen, where the smaller foreign particles pass down through the screen and into the drawer 25. The beans tail off onto the endless carrier 11, and as they pass on to the chute 13 an operator who stands at the end of the carrier 11 picks from the beans any foreign matter too large to pass through the screen and throws such matter into the bags 29 29. These bags 29 are provided with the hooks 30, which are caught onto the frames 31, secured to the table 32.

I claim—

A bean-sorting machine consisting of the hopper 2, the outlet 3 located at the lower end of the rear wall of the hopper, the vibrating chute 4 extending under the hopper in an inclined direction, the flexible connecting-strip 5 carrying the vibrating chute 4, the vibrating screen 6, the shaft 22 provided with

the bend 23 for rapping the chute 4 and causing it to vibrate, the inclined chute 13 and the endless carrier 11, extending from the vibrating screen 6 to the upper open end 12 of the chute 13, all combined and operating as and for the purpose stated.

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

JOHN J. JUNGERS.

Witnesses:
PETER J. ALMETER,
W. T. MILLER.