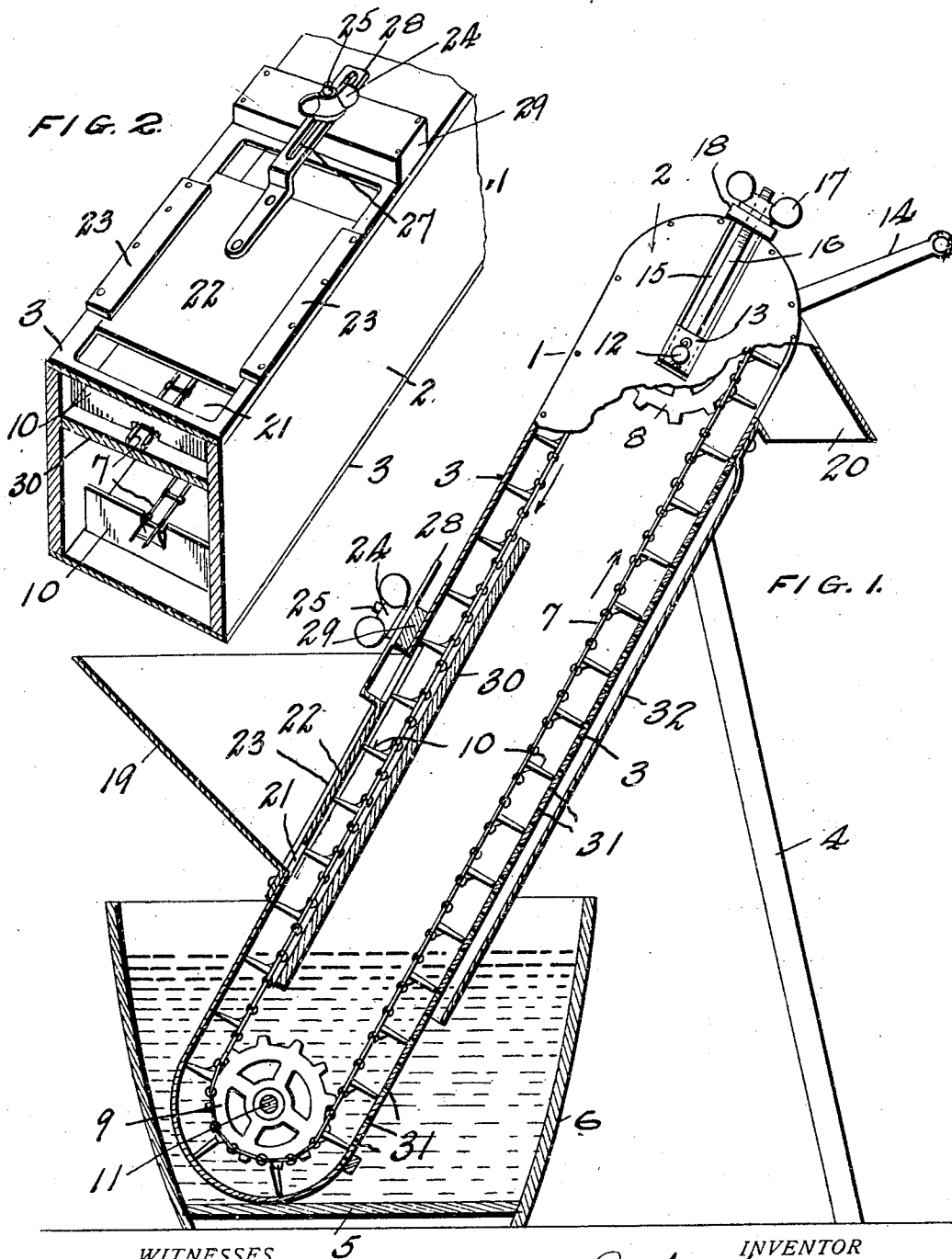


J. WILHELM.
GRAIN PICKLER.

APPLICATION FILED FEB. 11, 1908.

946,929.

Patented Jan. 18, 1910.



WITNESSES

Chas. K. Davies
E. L. Collett.

INVENTOR

Joseph Wilhelm
Brook Becken & Smith
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH WILHELM, OF MOOSE JAW, SASKATCHEWAN, CANADA.

GRAIN-PICKLER.

946,929.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed February 11, 1908. Serial No. 415,366.

To all whom it may concern:

Be it known that I, JOSEPH WILHELM, of the city of Moose Jaw, in the Province of Saskatchewan, Canada, farmer, have invented certain new and useful Improvements in Grain-Picklers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to improvements in grain picklers.

The device embodying the invention is intended primarily for use by agriculturalists, in cleansing the kernels of seed grain, to eliminate therefrom the fungus growth which is frequently present. The actual cleansing of the grain is accomplished by submerging the kernels in a cleansing agent, as a suitable liquid solution, and the period of exposure to the bath is timed to avoid the absorption by the kernels of an excessive quantity of the treating agent, which is a most objectionable feature accompanying the use of some machines as found in actual practice.

My improved machine is compactly and simply constructed to adapt it to its work, and when not in use may be disassembled and conveniently stored or packed until further use.

In the accompanying drawings I have illustrated one example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles.

Figure 1 is a side elevation of the device, partly broken away for convenience of illustration. Fig. 2 is a sectional perspective view of a portion of the apparatus.

In actual practice the casing 1 is formed of the two sides 2, 2, (which are preferably wood) and these members are connected by the metallic plate 3, which forms a closure. The apparatus is supported by a pair of legs 4 attached to the wood sides of the casing, and at a third point by the lower end of the casing itself, which rests on the bottom 5 of a tub or tank 6. Within the casing an endless carrier or conveyer is movably supported by its chain 7, on the upper and lower sprocket wheels 8 and 9 respectively. The conveyer is composed of a series of blades or scrapers 10 which are attached to devices on the chain 7, and extend approximately the width of the casing 1. The sprocket wheels are journaled on shafts 11 and 12, the latter

being supported in adjustable bearing blocks 13, and rotatable by means of the crank and handle 14. The bearing blocks 13 are seated in recesses or grooves 15 and are movable therein, to increase or decrease the tension of the endless carrier, through the medium of threaded rods 16 and winged nuts 17, the whole being supported in brace 18, and operated as will be readily understood.

As indicated in Fig. 1 of the drawing the casing is supported in an inclined position, with a hopper 19, as an inlet at the front, and a spout 20 opening into the casing at the upper end thereof, for a discharge at the rear. An opening 21 is formed in the metallic plate 3, bounded by the hopper, and this space forms the throat of the hopper, which may be restricted or enlarged as desired, by adjustment of the gate or regulator 22. The gate or valve is guided in its movement by the ways 23, and is held in adjusted position by means of the clamp nut 24 which is threaded onto the screw 25, and said screw being passed through the slot 27 of the extension or tongue 28 on the gate, the whole being supported by cleat 29. The endless conveyer is supported by a board or partition 30 over which the chain 7 passes, and this partition also serves as a distributor for the inflowing grain, as will be described. At the rear, the metallic casing is perforated, as indicated at 31, and attached adjacent this rear perforated face of the casing is a drip pan 32, closed at its sides and top, but open at the bottom.

In operation, a quantity of the grain to be treated is dumped into the hopper 19, (assuming the tank or tub 6 to have been previously filled to the required height with a liquid solution of the cleansing agent, and the casing with its lower end submerged in the liquid). The endless conveyer is moved by the rotation of the sprocket wheels through the medium of the crank handle. As the grain flows through the opening or throat 21, it is prevented from falling directly into the tub, by the interposition of the partition 30, and the passing blades 10, which are descending at this portion of the machine, catch and carry a quantity of the grain to the bottom of the casing. The interior of the casing at its lower end is filled to the desired height, by the liquid solution passing through the lowermost perforations 31. As the loaded blades descend, they deposit their grain at the lower end of the cas-

ing, and as they rotate around the wheel 9 and start to ascend at the rear of the casing, each blade scoops or scrapes up another load and lifts it to the outlet 20.

5 In its passage around the lower end of the casing, the grain is submerged in the cleansing solution and subjected to its cleansing properties a sufficient period of time to insure the proper treatment. An
10 accumulation of the grain in the casing is prevented by the continuously passing blades of the conveyer, which prevents an undue absorption of the cleansing liquid by the kernels, and the grain is lifted and
15 caused to travel upwardly over the inner surface of the perforated metallic plate. In its upward course, the grain is freed from the cleansing liquid, which percolates through the perforations 31, and falling
20 upon the inclined drip pan 32, flows downwardly and returns to the tub or tank, without appreciable loss. Should the kernels by any possibility pass the outlet spout and start on the descent at the front of the machine, they will drop through the casing,
25 before reaching the upper end of the partition 30, and be lifted by the ascending blades to the outlet spout, thus being prevented from falling a second time into the
30 cleansing solution.

From the above description taken in connection with the drawings it is evident that I have produced a machine which fulfils the conditions set forth as the object of my
35 invention.

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

40 1. The combination with a receptacle adapted to contain liquid, of a closed casing having one end therein and supported in inclined position, a conveyer, an inlet and

means for regulating the flow of grain to the conveyer, means for distributing grain in the casing, a perforated wall to the casing
45 adapted to be submerged in the liquid, an imperforate drip pan secured to the casing and extending into the liquid, an outlet to the casing, and means for actuating the
50 conveyer.

2. The combination with a vessel adapted to contain liquid, of a casing having one end therein and supported in inclined position, an endless conveyer, a hopper, an adjustable slide for regulating flow of grain
55 to the conveyer, a partition under the hopper and extending into the liquid for distributing the grain in the vessel, a perforated wall in the casing extending into the liquid, and an imperforate inclosing wall
60 adjacent the perforated wall adapted to be submerged, an outlet to the casing, and means for actuating the conveyer.

3. The combination with a vessel adapted to contain liquid, a casing and a pair of
65 sprocket wheels journaled therein, one of said wheels being adjustably supported, an endless chain on said wheels carrying blades, a hopper and a movable gate for adjusting communication between the hopper and casing,
70 a partition in the casing under the hopper and extending into the liquid, one of the walls of said casing being perforated and adapted to be submerged in the liquid, and an imperforate pan adjacent said wall
75 extending into the liquid, and means for rotating said wheels.

Moose Jaw Saskatchewan February 6th 1908.

JOSEPH WILHELM.

Signed and witnessed in presence of—

F. CLITHEROL,

R. J. HAWTHORNE.