W. L. ISOM.

GRAIN RECLAIMER.

APPLICATION FILED AUG. 23, 1917.

1,331,710. Patented Feb. 24, 1920.

Fig. 1

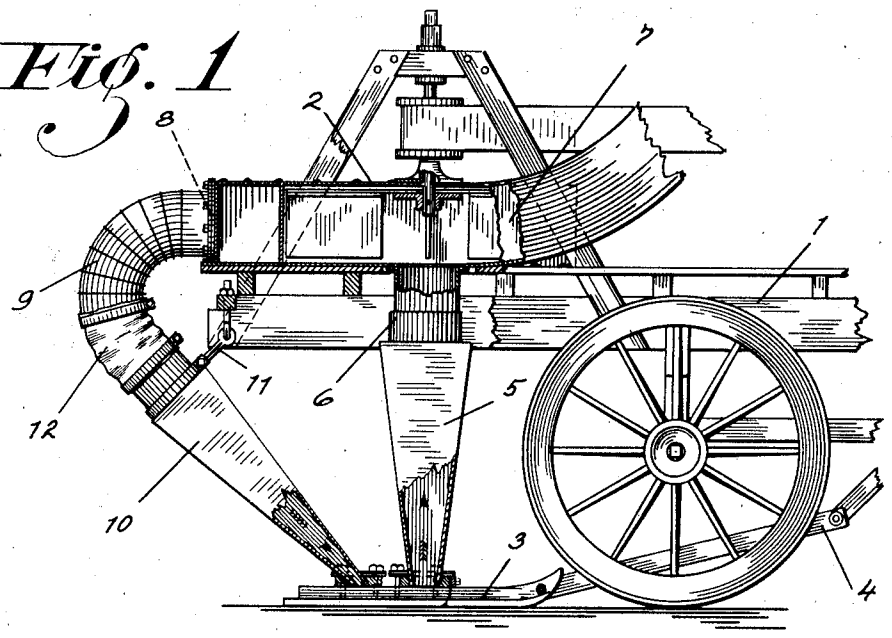


Fig. 2

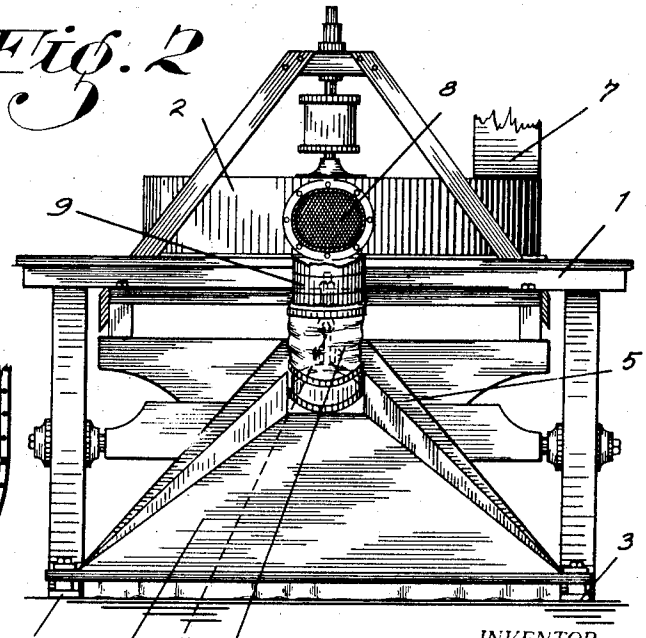
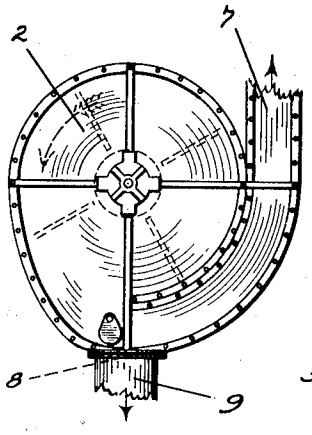


Fig. 3



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GRAIN-RECLAIMER.

1,331,710. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed August 23, 1917. Serial No. 187,836.

To all whom it may concern:

Be it known that I, WALTER L. ISOM, a citizen of the United States, residing at Crows Landing, in the county of Stanislaus, State of California, have invented certain new and useful Improvements in Grain-Reclaimers; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in machines for the reclaiming of grain which has fallen to the ground, due to the burning of the grain field or any other cause, and embodies the principles set forth in my application for patent, filed March 21st, 1917, Serial No. 156,494.

The present application especially provides for an independent air blast to be directed against the ground at the rear of the suction hopper, whereby the kernels of grain will be lifted from the ground by the force of this air blast, and directed into the suction hopper. I have found that this air blast is essentially necessary in order to clean up the grain thoroughly, since it lifts the kernels out of the crevices and depressions in the ground in a much more efficient manner than the sweeper broom shown in my previous application for patent.

A further object of the invention is to utilize the same pump for providing the suction blast and likewise the air blast. This is done by taking the exhaust air from the pump and driving it down through the air blast pipe to the discharge spout.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by perusal of the following specification and claim.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation partly broken out and in section of my improved mechanism.

Fig. 2 is a rear elevation of the same which is likewise partly broken out and in section, in order to show the screen interposed between the pump and the air blast pipe.

Fig. 3 is a top plan view of the pump.

Referring now more particularly to the characters of reference on the drawings, numeral 1 designates the body of the carriage or vehicle on which the pump 2 is mounted.

In applying my improved invention I first provide runners 3, which are dragged along with the vehicle 1 by means of drag bars 4, hinged to the front ends of the runners 3, and to the back of the vehicle 1. The suction hopper 5 is mounted on these runners 3 and is connected by a slip joint 6 with the pump 2. The suction of the pump 2, acting against the hopper 5, draws the grain through said hopper and into the pump 2, where it is carried around and discharged through the outlet 7 to any suitable grain cleaning or harvesting means (not shown).

At the point where the pump 2 discharges into the outlet 7, I have provided said pump with a screened outlet opening 8, from which leads the air blast pipe 9. The blast spout 10 is mounted on the runners 3, immediately to the rear of the hopper 5, and at its upper end is supported on the vehicle 1 by means of eye bolts 11. A flexible union 12 of canvas or other suitable material connects the pipe 9 with the spout 10.

In practice, the suction of the pump 2, as described, draws air and the grain through the hopper 5, and into the pump 2, and then tends to discharge same through the outlet 7. A part of the air blast produced by the operation of the pump, however, will pass through the screened outlet 8, pipe 9 and union 12 into the spout 10, from which it will be discharged against the ground at the rear of the hopper 5. This blast will lift all the loose grain and carry it directly into the path of the hopper 5. The advantages of this will be obvious.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the object of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

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

A combined suction and blower pump comprising a casing circular for three quarters of its periphery, vanes rotatably and concentrically mounted therein, an air intake in the casing, a discharge outlet, such outlet beginning at the inception of the circular portion of the casing and being outside the same and concentric therewith for a certain distance; the casing being carried in a flat curve from the termination of the circular portion to join the lower edge of the outlet; and a screened outlet projecting radially of the casing and positioned outside the first named outlet at the junction of said outlet with the flat curved portion of the casing, whereby some of the air being driven from the casing will be directed by the flat curved portion thereof, and impeded by the circular discharge to pass through the screened outlet.

In testimony whereof I affix my signature.

WALTER L. ISOM.