

Feb. 15, 1927.

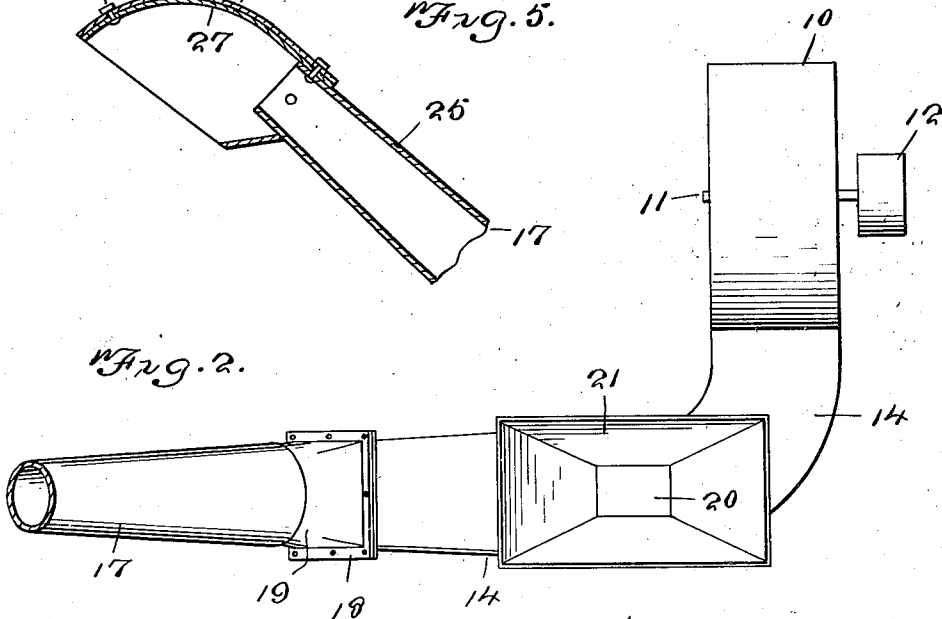
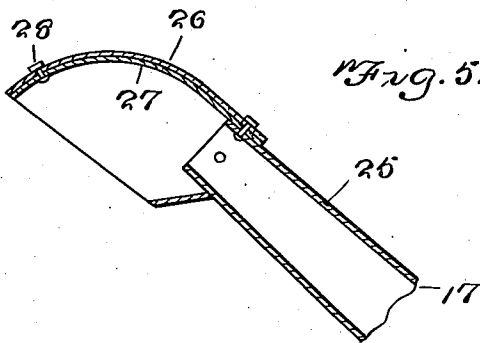
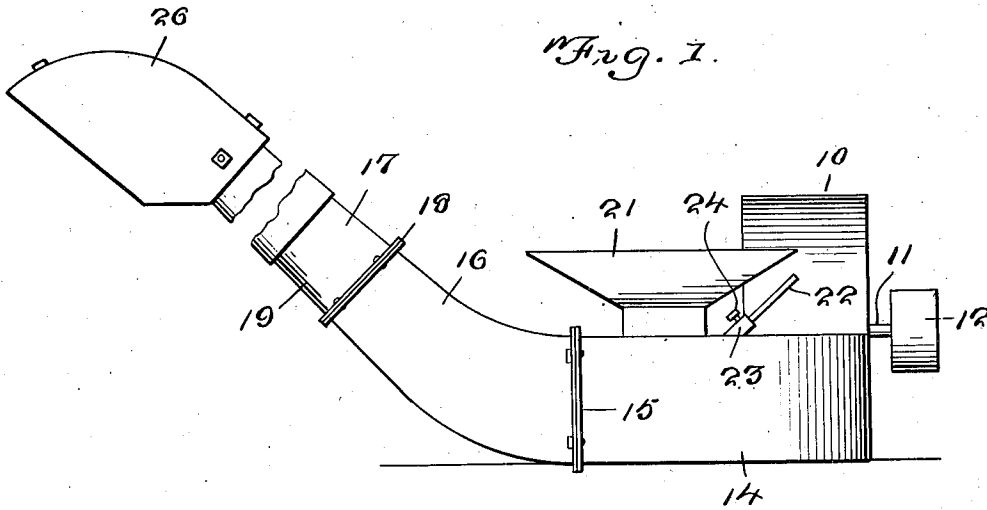
G. E. THOMAS, JR., ET AL

1,618,155

GRAIN LOADER

Filed Nov. 18, 1925

2 Sheets-Sheet 1



E. P. Ruppert.

WITNESS:

G. E. Thomas, Jr.
W. F. Wade.
F. B. Furwe
BY Victor J. Enns
INVENTOR.
ATTORNEY

Feb. 15, 1927.

G. E. THOMAS, JR., ET AL

1,618,155

GRAIN LOADER

Filed Nov. 18, 1925

2 Sheets-Sheet 2

Fig. 3.

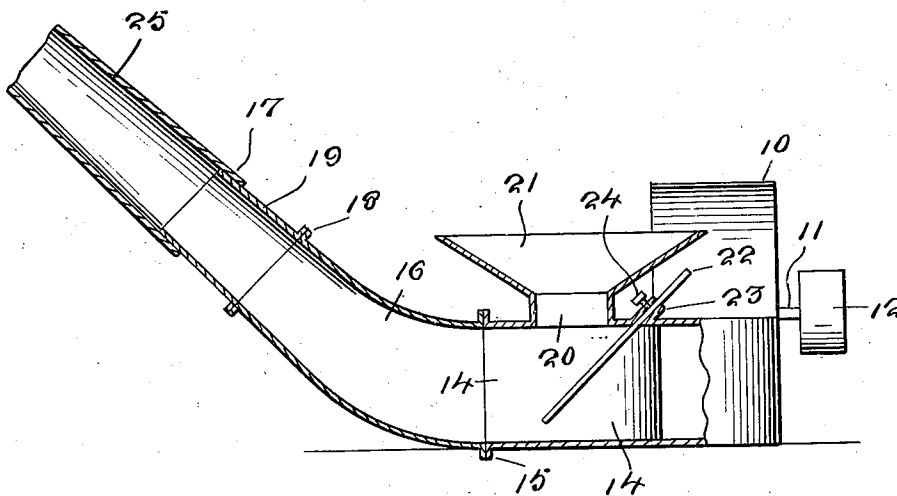
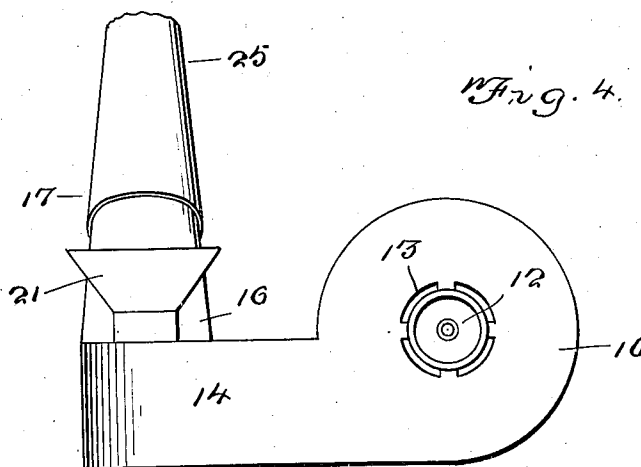


Fig. 4.



E. R. Ruppert.

WITNESS:

G. E. Thomas, Jr.
W. P. Wade
F. B. Ruwe
BY Victor J. Evans
INVENTOR
ATTORNEY

Patented Feb. 15, 1927.

1,618,155

UNITED STATES PATENT OFFICE.

GRIFF E. THOMAS, JR., WILLIAM P. WADE, AND FRANK B. RUWWE, OF EAGLE LAKE, TEXAS.

GRAIN LOADER.

Application filed November 18, 1925. Serial No. 69,870.

This invention relates to grain loaders and has for its object the provision of a pneumatic device by means of which grain may be loaded into cars or any other vehicles or storage places in a rapid and efficient manner.

An important object of the invention is to provide a pneumatic loader provided with means adjacent the inlet or feed hopper for insuring dropping of the grain into the device, this feature being to overcome difficulty which has been experienced with some types of devices.

Another object of the invention is to provide a device of this character embodying a removable section in the outlet conduit, this section being readily removable and replaceable when worn out.

Still another object is to provide a peculiarly constructed hood for the discharge end of the conduit, the hood having a removable lining readily capable of being replaced when excessively worn.

An additional object is to provide a device of this type which will be simple and inexpensive in manufacture, easy to assemble, repair and use, positive in action, efficient and durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction and arrangement of parts to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which:

Figure 1 is a side elevation of the device,
Figure 2 is a top plan view thereof,
Figure 3 is a longitudinal section,
Figure 4 is an elevation at right angles to Figure 1, and

Figure 5 is a detail section through the hood.

Referring more particularly to the drawings, we have shown the device as comprising a blower casing 10 within which is mounted the usual type of fan carried by a shaft 11 equipped with a pulley 12 for the application of power. At its center this casing has an air inlet opening 13 and at one side is an outlet conduit 14 preferably curved as shown or of elbow formation. The open end of this elbow is preferably flanged as indicated at 15 and detachably connected therewith, by suitable means, is a curved section 16 which forms part of the discharge conduit indicated generally at 17. The diameter of this curved section 16 preferably decreases toward the far end thereof and said far end is flanged at 18 for detachable engagement of a stub section 19 thereof with.

The elbow member 14 is provided in its top with an opening 20 and carries an inlet or feed hopper 21 through which grain to be loaded is introduced. To insure dropping of the grain to the bottom of the conduit or elbow member, we preferably provide a guard plate 22 located in advance of the opening 20 and slidably adjustably mounted through a slotted boss 23 at the top of the member 14. It is intended that this plate have its lower edge below the opening 20 and spaced above the bottom of the member 14 and any desired adjusted position is maintained as by means of a set screw 24. Obviously, grain dumped into the hopper will drop onto the plate 22 to the bottom of the conduit and be carried along by the air blast produced by the fan. The constriction of the opening below the lower edge of the guard plate intensifies the blast at this point and confines the blast to the lower portion of the conduit so that it will not interfere with the inlet of grain.

Detachably mounted upon the stub 19 is a spout 25 upon the upper end of which is detachably engaged a hood 26 which is of curved form with its open end inclining downwardly. As the hood is subject to rapid wear by the impingement of grain thereagainst, we provide a removable lining 27 which fits within the hood against the curved wall thereof and which is held in place by bolts 28 and the like, one of which may also be employed for securing the hood to the spout.

In the operation it will be apparent that the construction of the device is such that it may be placed close to a car or the like to be loaded, the spout of course extending up to the car and the hood being arranged to discharge the grain thereinto. When the fan is in operation and grain is poured or dumped into the hopper 21, it is clear that the grain will be carried upwardly through the spout and discharged into the car or other vehicle or place being filled. When the section 16 becomes worn it may be easily replaced by a new one without it being necessary to discard the entire conduit and the

hood may be relined whenever necessary.

From the foregoing description and a study of the drawings it will be apparent that we have thus provided a very simply constructed, inexpensive and easily operated and controlled device for the purpose specified which will efficiently perform all the functions for which it is intended.

While we have shown and described a preferred embodiment of the invention, it should be understood that we reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described the invention, we claim:

1. In a device of the character described, a casing having one end formed as an elbow member, a blower fan within the casing, an inlet hopper for the top of the casing, an outlet conduit connected with the elbow por-

tion of the casing, and an inclined guard plate slidably mounted through the top of the elbow member in advance of the inlet hopper.

2. In a device of the character described, a casing having one end formed as an elbow member, a blower fan within the casing, an inlet hopper for the top of the casing, an outlet conduit connected with the elbow portion of the casing, a guide on the top of the elbow member, an inclined guard plate slidably mounted through said guide in advance of the inlet hopper, and a set screw for adjusting the position of the guard member with respect to the bottom of the elbow member.

In testimony whereof we affix our signatures.

GRIFF E. THOMAS, JR.
WILLIAM P. WADE.
FRANK B. RUWWE.