No. 670,161. Patented Mar. 19, 1901.

J. A. OLRICH.

ATTACHMENT FOR GRAIN DRILLS.

(Application filed Aug. 14, 1900.)

(No Model.)

Fig. 1.

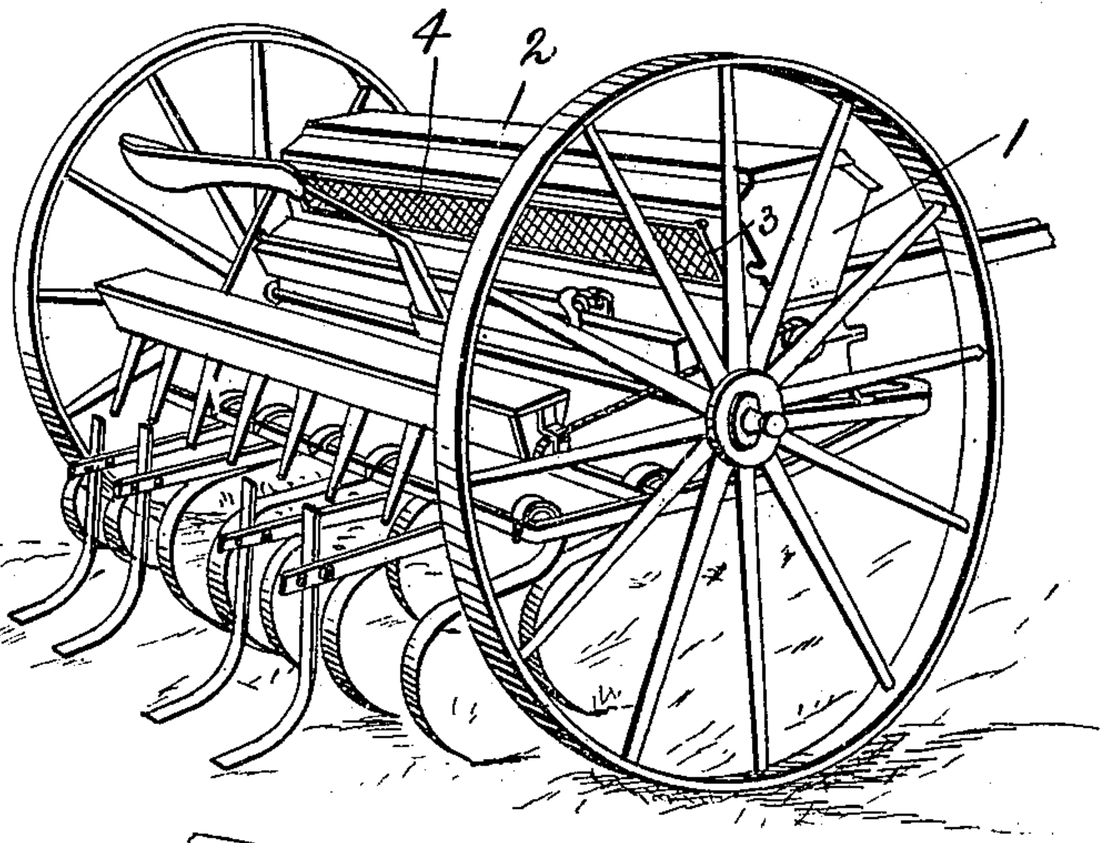


Fig. 5.

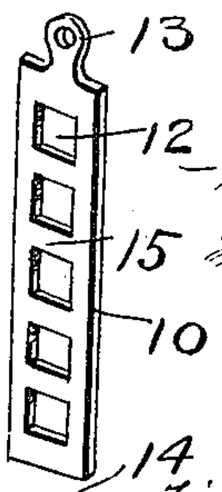


Fig. 4.

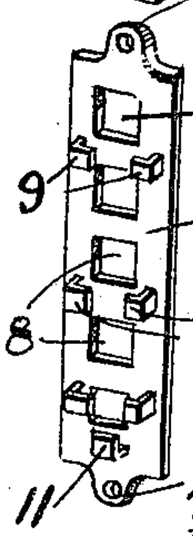


Fig. 3

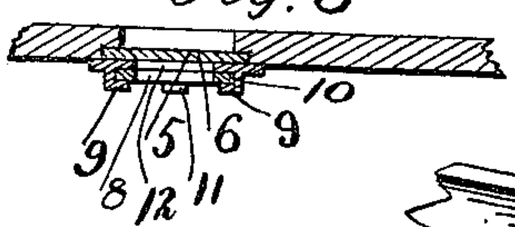


Fig. 2.

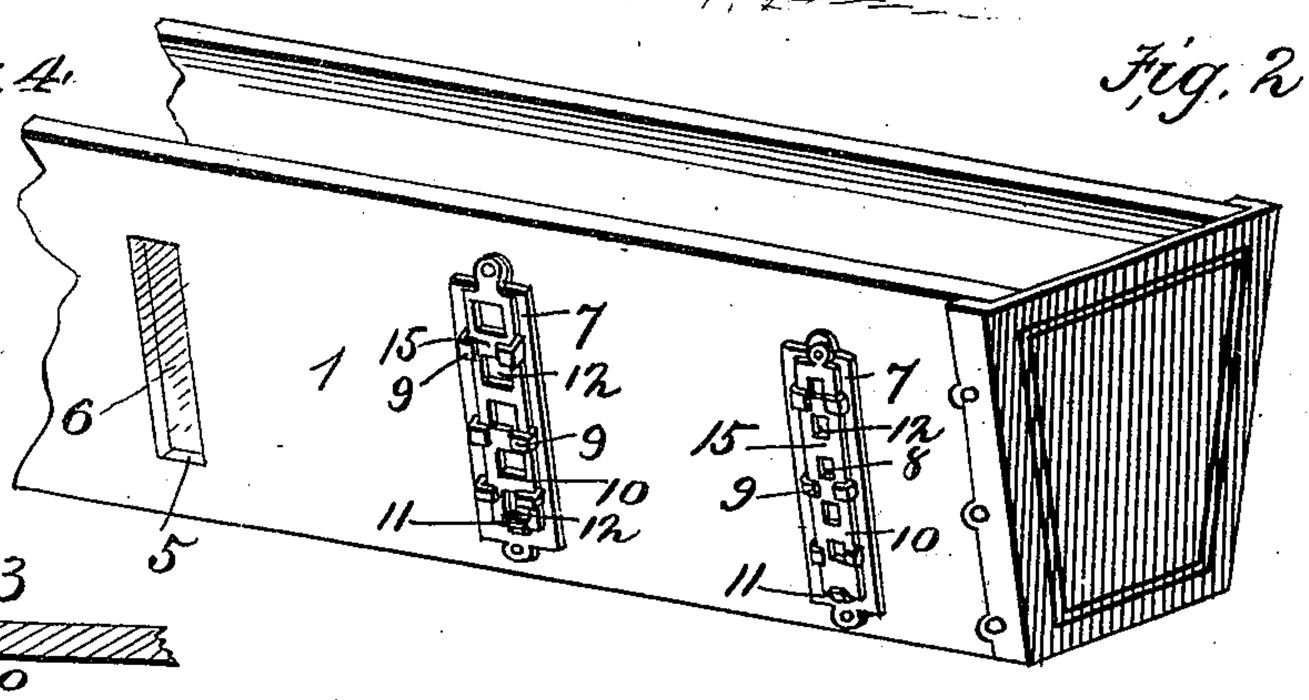


Fig. 6.

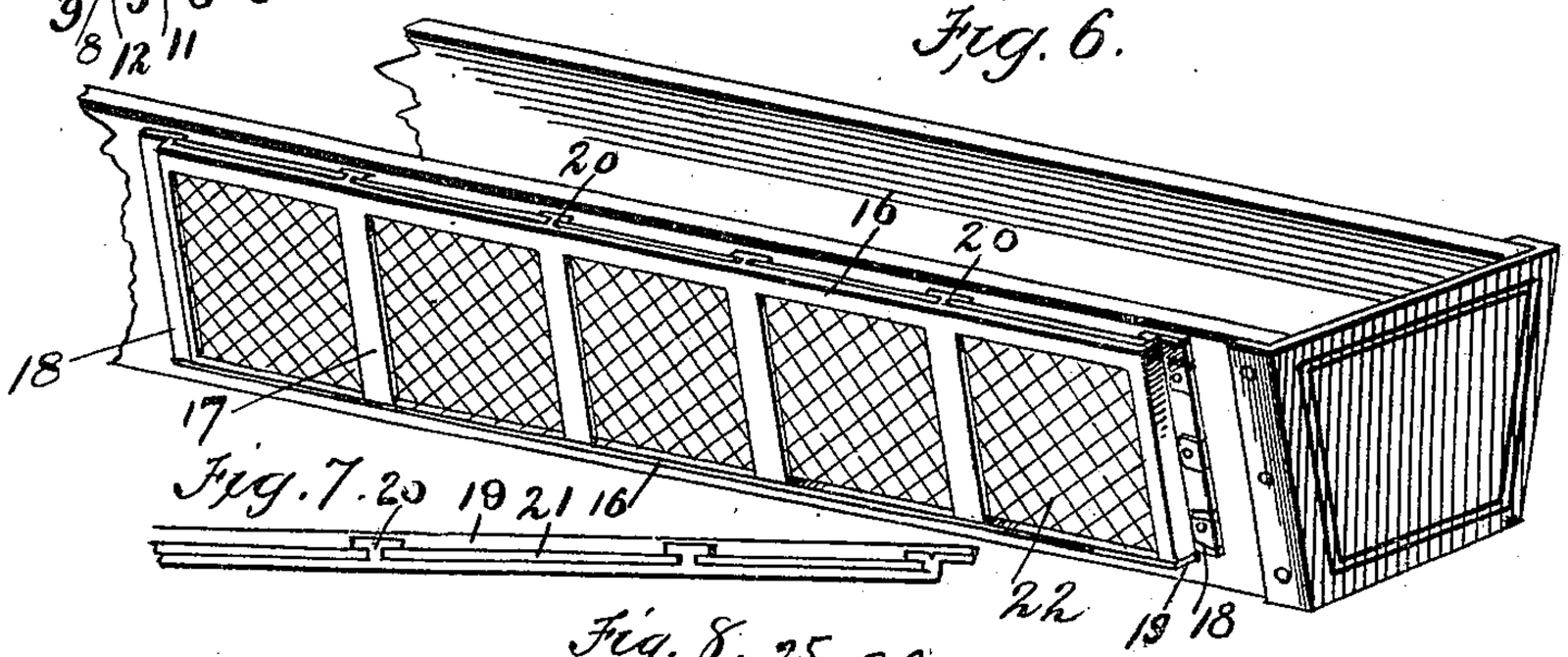
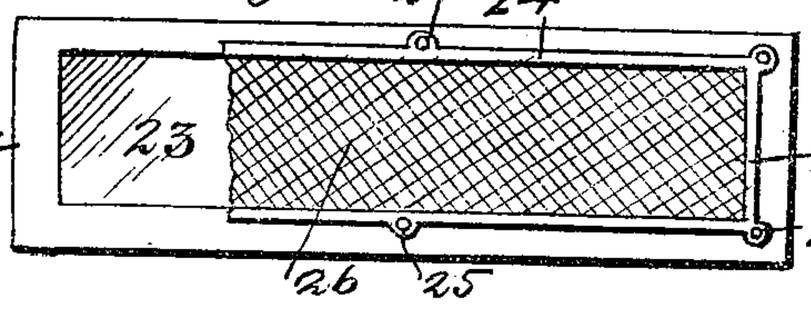


Fig. 7. 20 19 21 16

Fig. 8. 25 24



Witnesses
F. L. Ourand.
J. Chester

Inventor
John A. Olrich
By
W. T. Fitzgerald & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN A. OLRICH, OF BYRON, MICHIGAN.

ATTACHMENT FOR GRAIN-DRILLS.

SPECIFICATION forming part of Letters Patent No. 670,161, dated March 19, 1901.

Application filed August 14, 1900. Serial No. 26,839. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. OLRICH, a citizen of the United States, residing at Byron, in the county of Shiawassee and State of Michigan, have invented certain new and useful Improvements in Attachments for Grain-Drills; 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.

My invention relates to seeding-machines of various kinds, and more especially to grain-drills employing a single hopper to contain the seed to be planted; and it consists of certain novel features of combination and construction of parts, as will be hereinafter fully described and claimed.

One object of my invention is to provide convenient and reliably-efficient means whereby the operator will at all times be enabled to readily determine at a glance the condition or quantity of the contents within the hopper.

Further objects and advantages will be made fully apparent from the following specification, considered in connection with the accompanying drawings, in which—

Figure 1 is a perspective view showing my invention applied to use upon an ordinary grain-drill. Fig. 2 is a detail perspective view of a portion of the hopper of a drill, showing another form of construction which may be employed in materializing my invention. Fig. 3 is a detail view in section of a portion of one of the devices illustrated in Fig. 2: Figs. 4 and 5 are detail perspective views of parts of the device shown in Fig. 3. Figs. 6, 7, and 8 illustrate other forms of construction which may be employed in placing my invention into practical operation.

In order to conveniently designate the several parts of my invention and the elements required to illustrate a practical application thereof to use, numerals will be employed, of which 1 indicates the hopper or receptacle of a grain-drill of the usual or any preferred construction, which may be provided with a lid 2, as is common, while preferably upon the rear side of the body portion of the receptacle 1 I locate my improvement, which consists in so preparing the wall of the hopper that the operator may at all times view the contents of the hopper, and thus determine the quantity therein and its condition.

The simplest form of materializing my invention will be found to be that illustrated in Fig. 1, wherein an entire section of the rear wall of the receptacle 1 is cut away and replaced with glass, it being understood that glass of extra thickness and strength should be employed, and in order to protect the glass thus embedded in the rear wall and secured thereto in any preferred way I provide the covering or guard, which consists of a frame-section 3 and an interior meshed portion 4, the meshed portion being readily formed integral with the frame-section, if desired. This will be a very cheap form of construction, inasmuch as but a single piece of glass may be properly embedded and secured in the open section from which a portion of the rear wall has been removed, it being understood that said removed portion may be of any desired size and location. If preferred, however, the wall of the body of the hopper or receptacle 1 may be cut away at intervals, as indicated by the numeral 5, and a single piece of glass 6 of suitable character duly secured in the opening thus formed and designed to coöperate with the opening thus provided is the complete device, (shown in a sectional view in Fig. 3,) and consisting of the base-plate 7, provided with graduated openings 8 and also with the lugs or guiding-sections 9, and designed to coöperate with the openings 8 and be held in place by the lugs or brackets 9 is the movable or sliding section 10, which is formed of sufficient size to fit between the lugs brackets 9 and so arranged that the lower end will rest upon the lower bracket 11, as shown in Fig. 4. The lugs 9 and bracket 11 are preferably struck up from the plate 7.

The sliding section 10 is provided with graduated openings 12, which are designed to register or coöperate with the openings 8 when desired, the upper end of the sliding section 10 being provided with the controlling-handle 13, by means of which the slide can be readily placed under the control of the operator. The plate 7 is provided at each end

with the ears or lugs 14, having suitable apertures, by means of which the plate may be readily secured in its operative position, when the slide 10 may be dropped in place into engagement with the lugs, and it is obvious that by properly manipulating the sliding section 10 the openings 8 in the plate 7 may be wholly covered or left entirely open, according to the position of the openings in the section 10. It therefore follows that when it is desired to entirely close the opening and prevent the glass from being visible the slide 10 may be moved downward until the lower end thereof rests upon the bracket 11, which will insure that the intermediate sections 15 between the openings 12 will cover the openings 8. When, however, it is desired that the contents of the hopper shall be visible through the glass, the sliding section 10 is raised until the openings 12 register with the openings 8, when a contiguous portion of the contents of the hopper is placed in view of the operator. The sliding section 10 will readily remain at any point to which it is elevated, inasmuch as it will fit snugly between the lugs 9, as will be readily understood.

In Fig. 6 another form of construction is illustrated, wherein it will be seen that a plate consisting of a frame-section 16 is provided, which is preferably formed at uniform intervals with the vertically-disposed ribs or sections 17, the said frame being provided at each end with the anchoring-flanges 18, having suitable apertures, by means of which the frame is reliably secured in an adjusted position upon the wall of the hopper. It will be understood that before the frame-section 16 is secured in place a section of the rear wall is to be removed, while the lower edge of the frame-section is to be provided with an inwardly-directed flange 19, which will insure that the frame thus provided will fit snugly in contact with the surface of the wall of the hopper, and thus prevent leakage of contents.

In order to render it unnecessary to provide a single glass extending from end to end of the hopper, and thus reduce the expense of replacing said glass in case it should become casually broken, I provide upon the inner surface of the lips or vertical uprights 17 the cleats 20, which it will be seen by reference to Fig. 7 are T-shaped in cross-section, thus providing the flange upon each side to engage the edge of a section of glass 21. It is therefore clearly apparent that separate sections of glass may be readily introduced into place between the cleats 20 and may be readily removed or replaced when desired without disturbing the arrangement of the other parts, and in order to protect the glass thus provided I form between the sections 17 a lattice or grill work, as indicated by the numeral 22, thereby insuring that the glass will be guarded, though at the same time permitting the contents of the receptacle 1 to be at all times readily visible.

In Fig. 8 it will be seen that the rear wall or section thereof is removed and replaced by a piece of glass of suitable size and that the glass thus disposed is wholly inclosed and protected by the frame-section 24, having the anchoring-ears 25 and the grill or lattice work 26, the said frame being designed to protect the glass from becoming casually injured.

It will be seen that my invention may be applied to either side or to the end sections of the hopper, if preferred, and while I have shown the preferred construction which may be adopted in producing the several parts of my invention it will be understood that I desire to comprehend all such equivalents and substitutes as may be considered to fall fairly within the scope of my invention.

The parts of my invention may be very cheaply manufactured and readily assembled in their respective operative position, and believing that the advantages, construction, and use of my improved attachment for grain-drills have been made clearly apparent from the foregoing specification, considered in connection with the accompanying drawings, further reference to the details thereof is deemed unnecessary.

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

1. The herein-described attachment for grain-drills or the like comprising a cut-away section formed in the wall of the seed-receptacle; a section of glass adapted to fill said opening and an outer guard or covering to protect the glass against breakage, said outer covering consisting of a framework having openings through which the glass is visible and means to secure said outer guard in an adjusted position substantially as specified and for the purpose set forth.

2. As an improvement in grain-drills or the like a hopper; a glass-inclosed opening provided in the wall of said hopper and an adjustable covering for said glass section adapted to expose a portion of the glass or to wholly inclose the same at will substantially as specified and for the purpose set forth.

3. In grain-drills or the like a hopper having an opening or openings provided in the wall thereof in combination with a guard having openings through which the glass and the contents of the hopper are visible and means to wholly cover the glass as desired, substantially as specified and for the purpose set forth.

4. In grain-drills or the like a hopper-section having an opening or openings in the wall thereof; a plate provided with openings secured over the glass section and an auxiliary plate or cover adapted to register with said plate whereby the glass may be partly or wholly inclosed at will, substantially as specified and for the purpose set forth.

5. In grain-drills or the like a hopper-section having an entire end or side section pro-

vided with a glass-covered opening and a co-operating guard-section provided with a plurality of openings through which the glass and the contents of the hopper are visible and means to attach said guard-section in place substantially as specified and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. OLRICH.

Witnesses:
T. H. BENTON,
F. S. RUGGLES.