

No. 614,600.

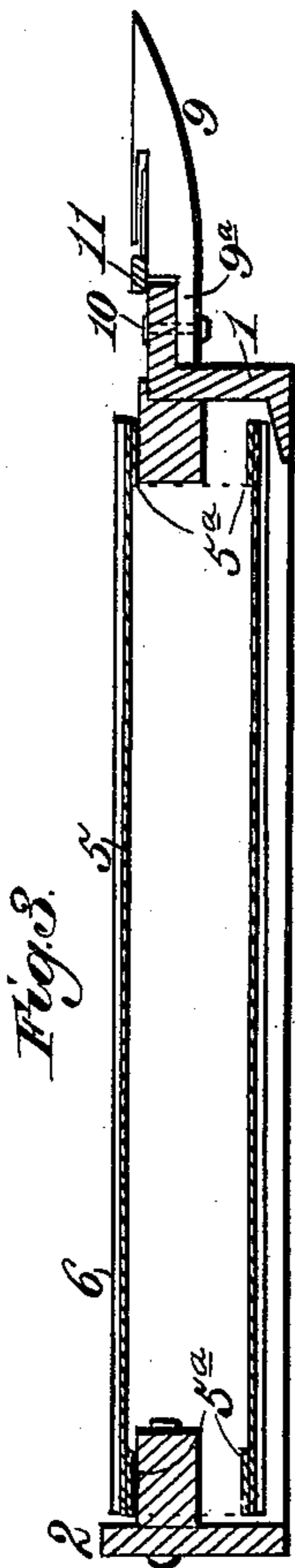
Patented Nov. 22, 1898.

A. E. ANDERSON.  
HARVESTER.

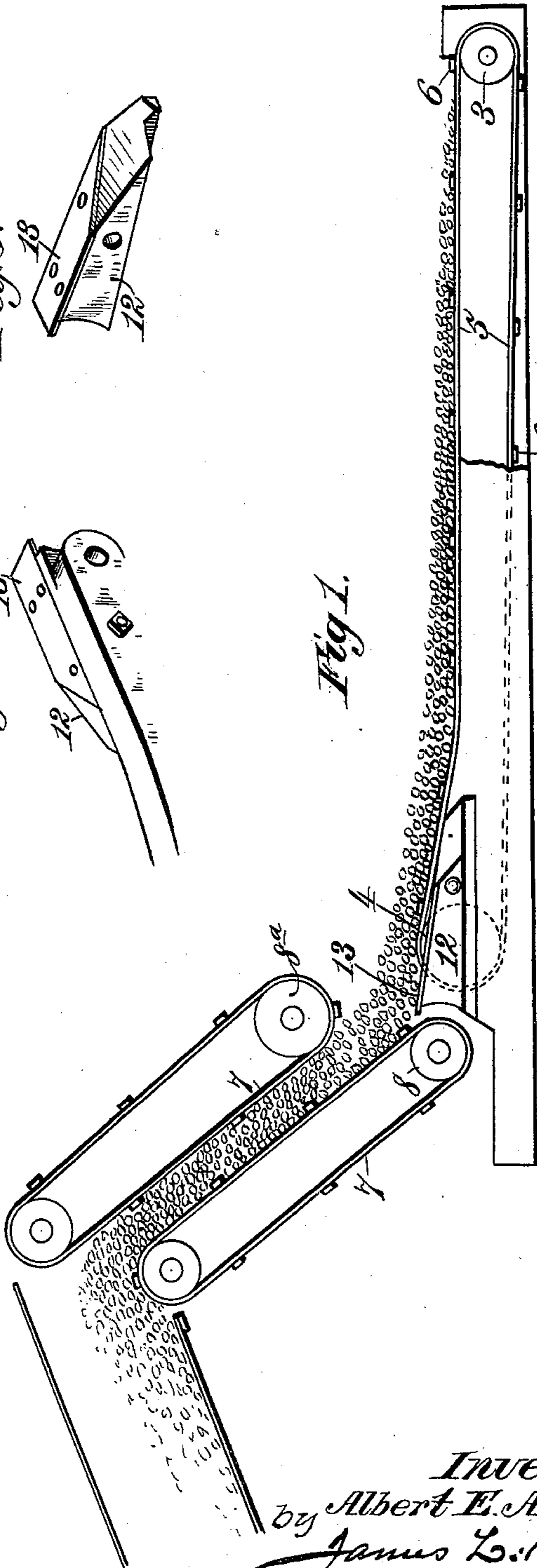
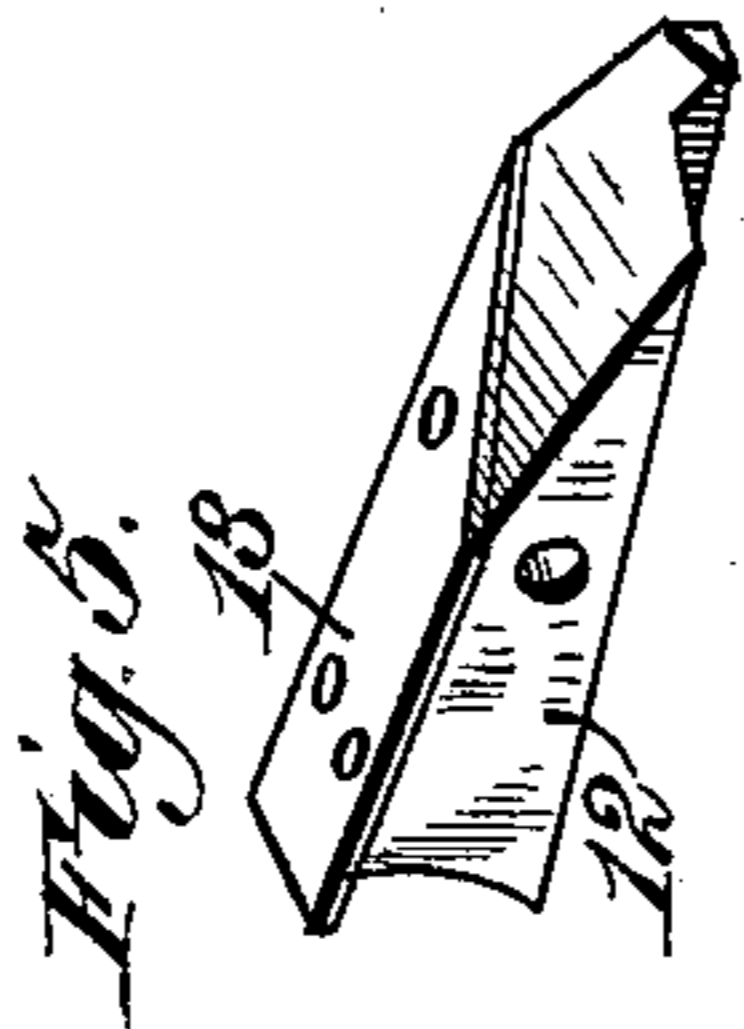
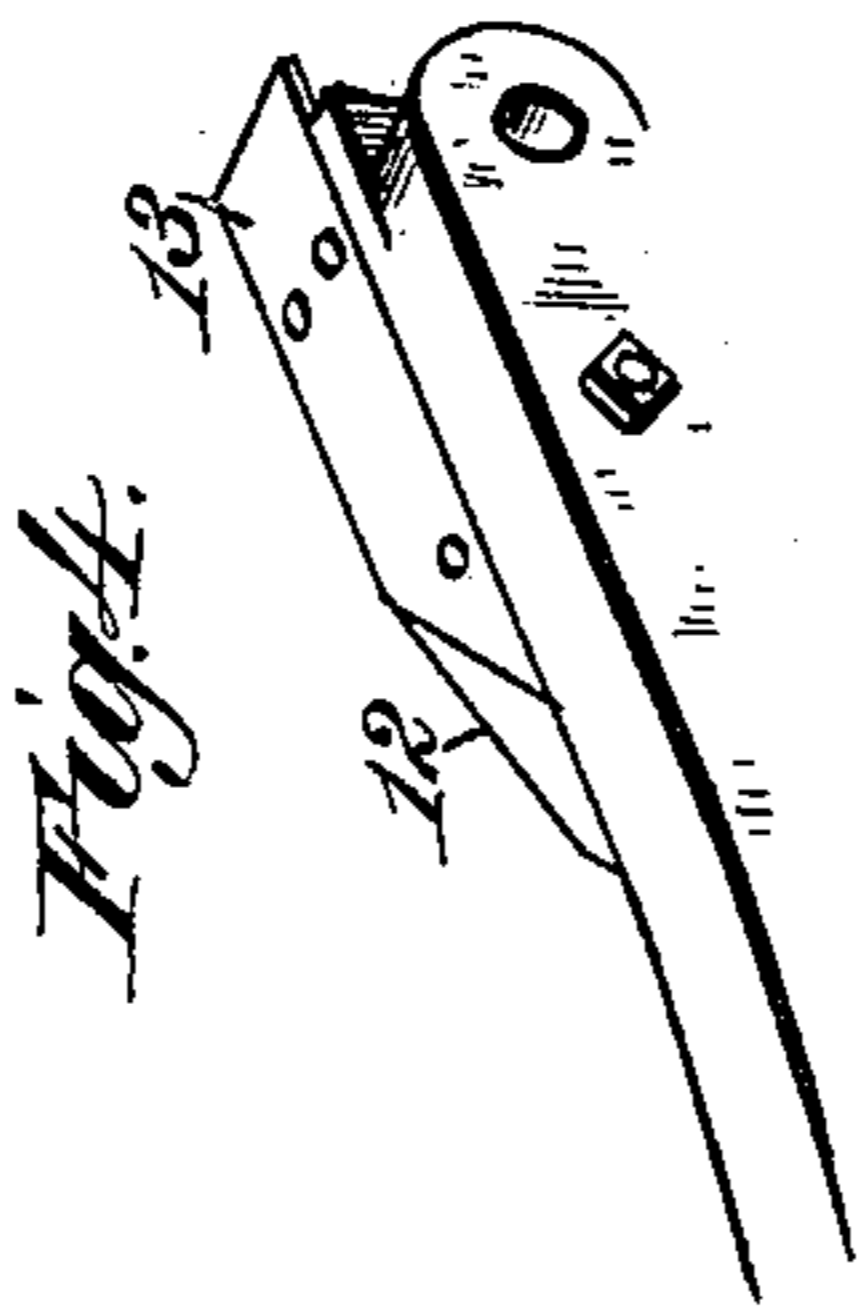
(Application filed Feb. 17, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.  
Robert Everett,  
R. D. Johnston Jr.



Inventor.  
by Albert E. Anderson,  
James L. Norris.

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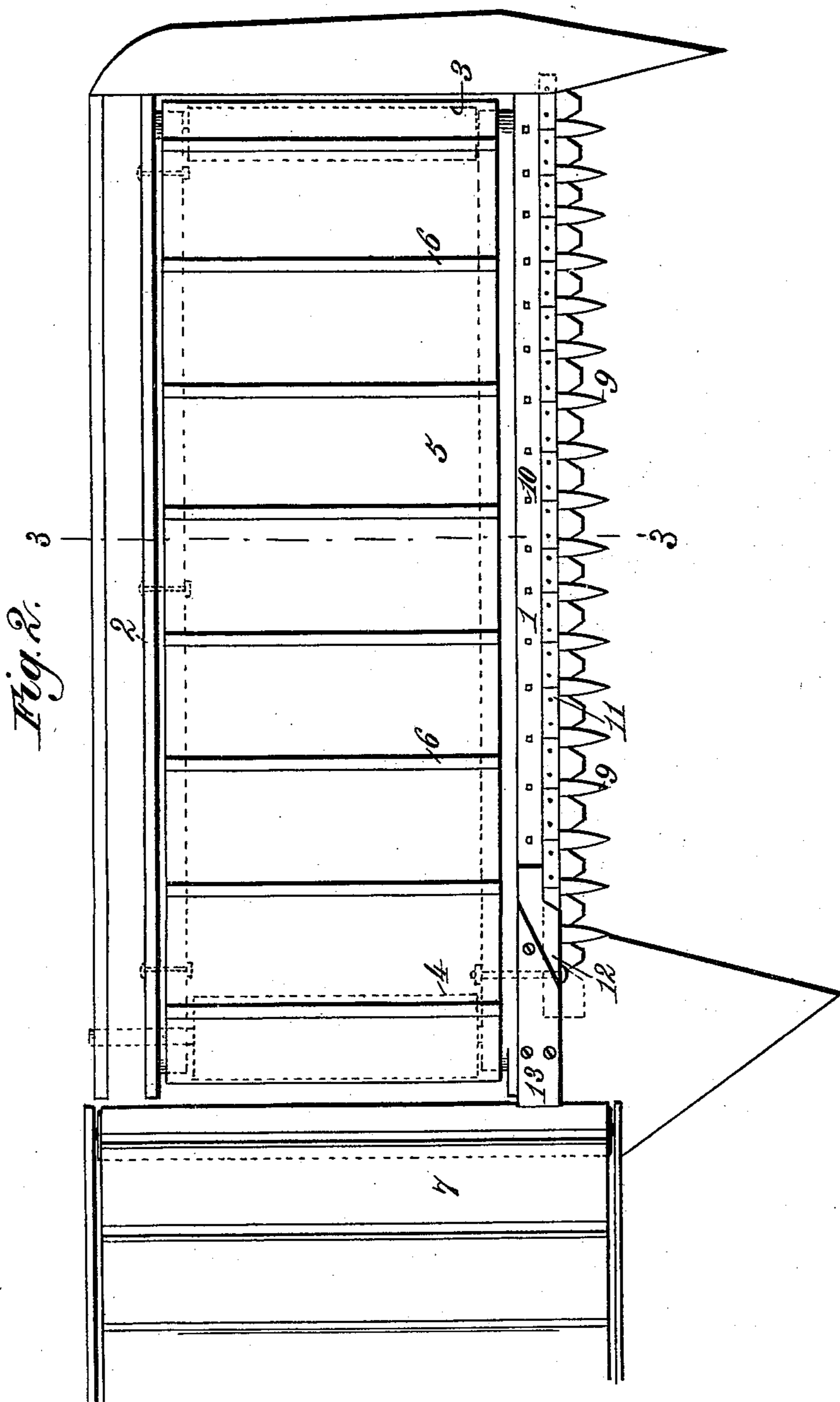
Patented Nov. 22, 1898.

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HARVESTER.

(Application filed Feb. 17, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

ALBERT E. ANDERSON, OF BELFAST, TENNESSEE.

## HARVESTER.

SPECIFICATION forming part of Letters Patent No. 614,600, dated November 22, 1898.

Application filed February 17, 1898. Serial No. 670,680. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. ANDERSON, a citizen of the United States, residing at Belfast, in the county of Marshall and State of Tennessee, have invented new and useful Improvements in Harvesters, of which the following is a specification.

This invention relates to improvements in harvesters, and has for its object to so arrange the platform and the endless carrying-apron relatively to the cutter-bar or sickle that they shall be in substantially the same horizontal plane, whereby the grain will be delivered evenly and squarely upon the apron in such manner as to prevent the butts of the grain from dragging or lagging behind.

It has also for its object to so construct the platform that the grain upon the carrying-apron is given a gradual ascending movement as it approaches the elevator; to provide means for guiding the grain from the platform, so as to insure its delivery to and reception by the elevator-apron and prevent the grain from falling between the elevator-roller and the platform carrying-apron, and, finally, to provide a construction whereby the platform carrying-apron will be tightened under the load of grain carried thereby.

To these ends my invention consists in the construction, combination, and arrangement of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a front elevation of the platform and apron, the cutter and finger-bar being broken away. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view illustrating the guide-plate, and Fig. 5 is a similar view illustrating the same detached from the platform.

Referring to the drawings, the numeral 1 indicates the front rail, and 2 the rear rail, of the platform, which are suitably connected together by transverse bars or braces in the usual manner. In the opposite ends of the rails 1 and 2 are journaled rollers 3 and 4, about which travels the endless apron 5, provided with the usual transverse slats 6. The numeral 7 indicates the elevator-aprons trav-

eling about rollers 8 and 8<sup>a</sup>, arranged in proximity to the roller 4.

The front rail 1 is recessed or rabbeted at its forward under edge, as shown in Fig. 3 of the drawings, to receive the rear portion 9<sup>a</sup> of the guard-fingers 9, which are firmly connected with said rail by means of suitable bolts 10. The numeral 11 indicates the cutter-bar arranged to reciprocate in the guard-fingers, as usual. The cutter-bar and the apron are operated by any of the usual or well-known means, and as my invention does not relate thereto such means are not herein shown or described. The edges of the apron travel upon the upper edges of guards attached to the inner sides or faces of the rails 1 and 2, as shown. These guards practically form parts of the rails 1 and 2 and are only made separate therefrom and afterward bolted thereto for convenience in manufacture, and it is manifest that they could form integral parts of said rails.

In the following description whenever the rails 1 and 2 are referred to it is to be understood that the guards on which the edges of the apron travel are also included. As most clearly shown in Fig. 3, the edges of the apron are folded inward and back upon the body of the apron, as at 5<sup>a</sup>, in order to make the edges of the apron which travel on the rails of double thickness, thus elevating the grain-receiving surface of the apron very slightly (in practice about one-fourth of an inch) above the operative plane of the sickle or cutter. Said rails 1 and 2 at their inner ends are beveled or inclined upward, so as to cause the apron 5 to have a gradually-ascending movement as it approaches the elevator-apron and thus deliver the grain to the elevator-apron at a point above the axial line of the lower roller 8, about which the elevator-apron travels. To enable this movement of the carrier-apron 5 to be accomplished satisfactorily and for a further purpose to be described, the roller 4, as shown, is of a larger diameter than the roller 3, the latter being of a diameter to cause the apron 5 to travel horizontally on the level portions of the rails 1 and 2 and the former having a larger diameter to enable the apron 5 to travel up the inclined portions of the rails 1 and 2 without strain. The relative diameters of the rollers 3 and 4 may be changed to suit any

given circumstances without departing from my invention.

Bolted to the inner end of the front rail 1 is a block 12, said block being beveled or inclined on its upper edge to correspond to the beveled or inclined portion of the rail 1, and attached to the upper edge of said block is a sheet-metal guide-plate 13, which extends beyond the periphery of the roller 4 and into close juxtaposition to the roller 8 of the elevator-apron. This plate acts as a carrier to lift the butts of the grain over the space between the rollers 4 and 8 and deliver the same to the elevating-apron, which carries it in proper condition for further treatment upon the binder-deck. (Not shown.)

The operation of the apparatus is as follows: The grain as it is cut falls upon the apron 5, which, as stated, is arranged in substantially the same horizontal plane with the cutter or sickle, and by reason of this fact the grain falls uniformly and transversely upon the apron, its butts resting on the thickened edge of the apron slightly above the finger-bar or sickle, so as to avoid entanglement therewith. As the carrying-apron approaches the elevator it is compelled to take an ascending path by the inclined edges of the rails 1 and 2, and the grain is evenly and accurately delivered to the elevating-apron. The guide-plate 13 prevents the butts of grain falling between the roller 8 of the elevator-apron and the roller 4, upon which the platform carrying-apron is trained. Were it not for the provision of this guide-plate 13 the butts of the grain would fall between the rollers, with the result that the operation of the apparatus would become clogged or the grain unevenly delivered to the apron.

The arrangement of the rollers 3 and 4, upon which the platform carrying-apron travels, in connection with the inclined portions of the rails 1 and 2, compels the apron to take an ascending or rising path toward the rear of the platform and renders said apron self-tightening under the load of grain carried thereby. This will be apparent from a consideration of the arrangement of the rollers 3 and 4 and the inclined rails 1 and 2 shown in the drawings.

The normal tendency of that part of the platform carrier-apron which is uppermost

in the travel of the apron would be to assume a straight line between the peripheries of the rollers 3 and 4; but under the weight of the grain carried thereby it is forced out of such line, as shown in Fig. 1 of the drawings, whereby the apron is automatically tightened, so that it will firmly engage and travel uniformly and evenly upon the rollers 3 and 4 and deliver the grain uniformly and evenly to the elevating-apron.

Having described my invention, what I claim is—

1. In a harvester, the combination with the platform and reciprocating cutter, of front and rear rails carried by the platform and having their upper edges from their outer ends to a point near their inner ends arranged in the same horizontal plane with the cutter and having their inner ends inclined upward, of rollers journaled in the inner and outer ends of the rails, an apron driven by said rollers and arranged to travel at its edges on the upper edges of the rails, and a guide-plate attached to the outer face of the inner end of the front rail and projecting beyond the inner end of the apron in the same plane with the inclined upper inner edge of the rail, substantially as described.

2. In a harvester, the combination with the platform and an elevator-apron arranged in proximity to the inner end thereof, of horizontal rails fixed on the platform and having their inner ends gradually inclined upward toward the elevator-apron, rollers journaled in the opposite ends of the rails, an endless apron driven by the rollers, a block attached to the outer face of the inclined end of the front rail and inclined on its upper edge to correspond with the inclination of the rail, and a guide-plate attached to the inclined upper edge of said block and projecting beyond the inner end of the apron into close proximity to the elevator-apron, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT E. ANDERSON.

Witnesses:

GEORGE D. SANDERS,  
MARCELLUS W. FOWLER.