

No. 612,537.

Patented Oct. 18, 1898.

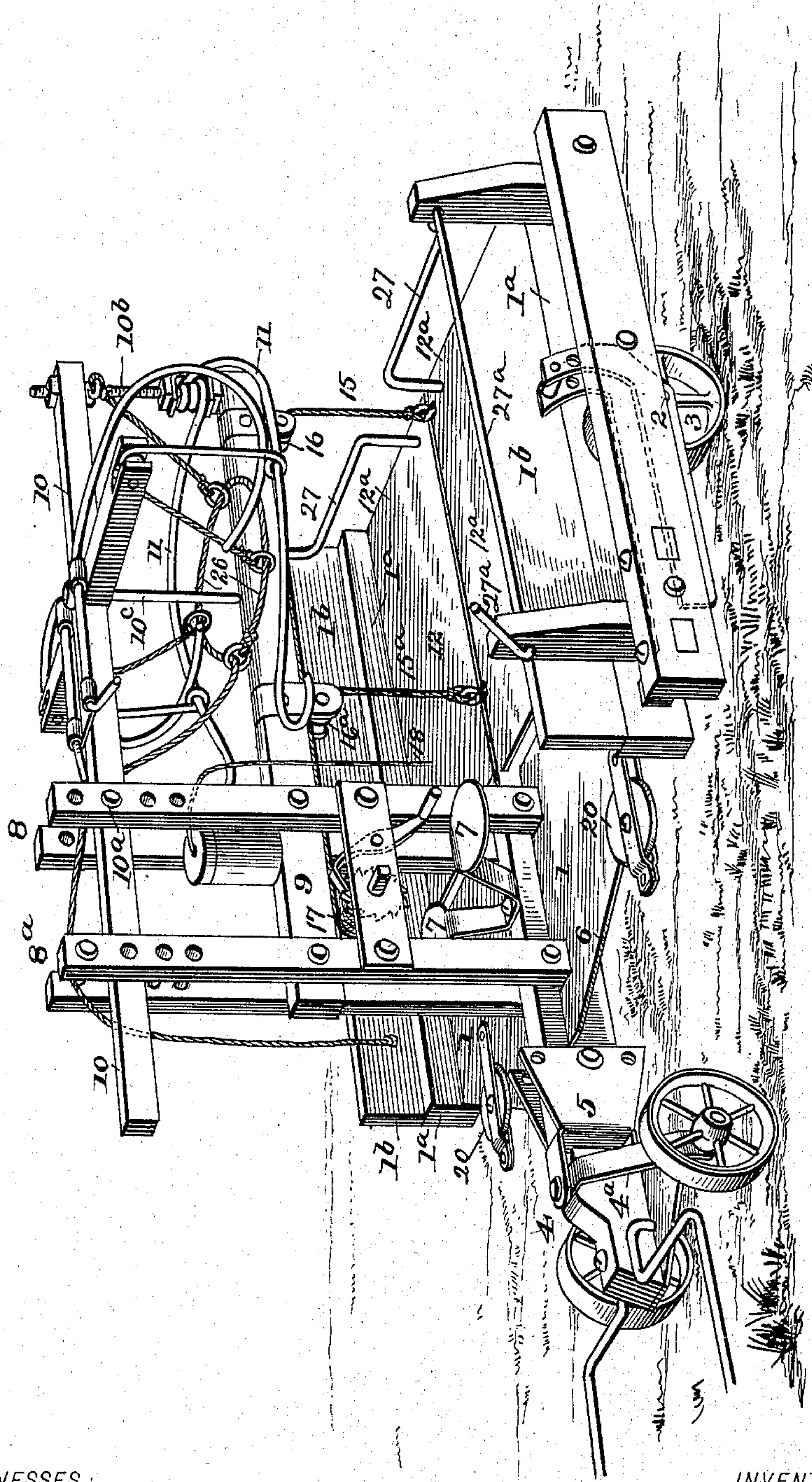
F. L. WEIGAND.
CORN HARVESTER.

(Application filed Dec. 18, 1897.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1



WITNESSES:

A. L. Marsh

Edwin L. Bradford

INVENTOR

Frank L. Weigand

BY

Richard Shipps
ATTORNEY

No. 612,537.

Patented Oct. 18, 1898.

F. L. WEIGAND.
CORN HARVESTER.

(Application filed Dec. 18, 1897.)

(No Model.)

2 Sheets—Sheet 2.

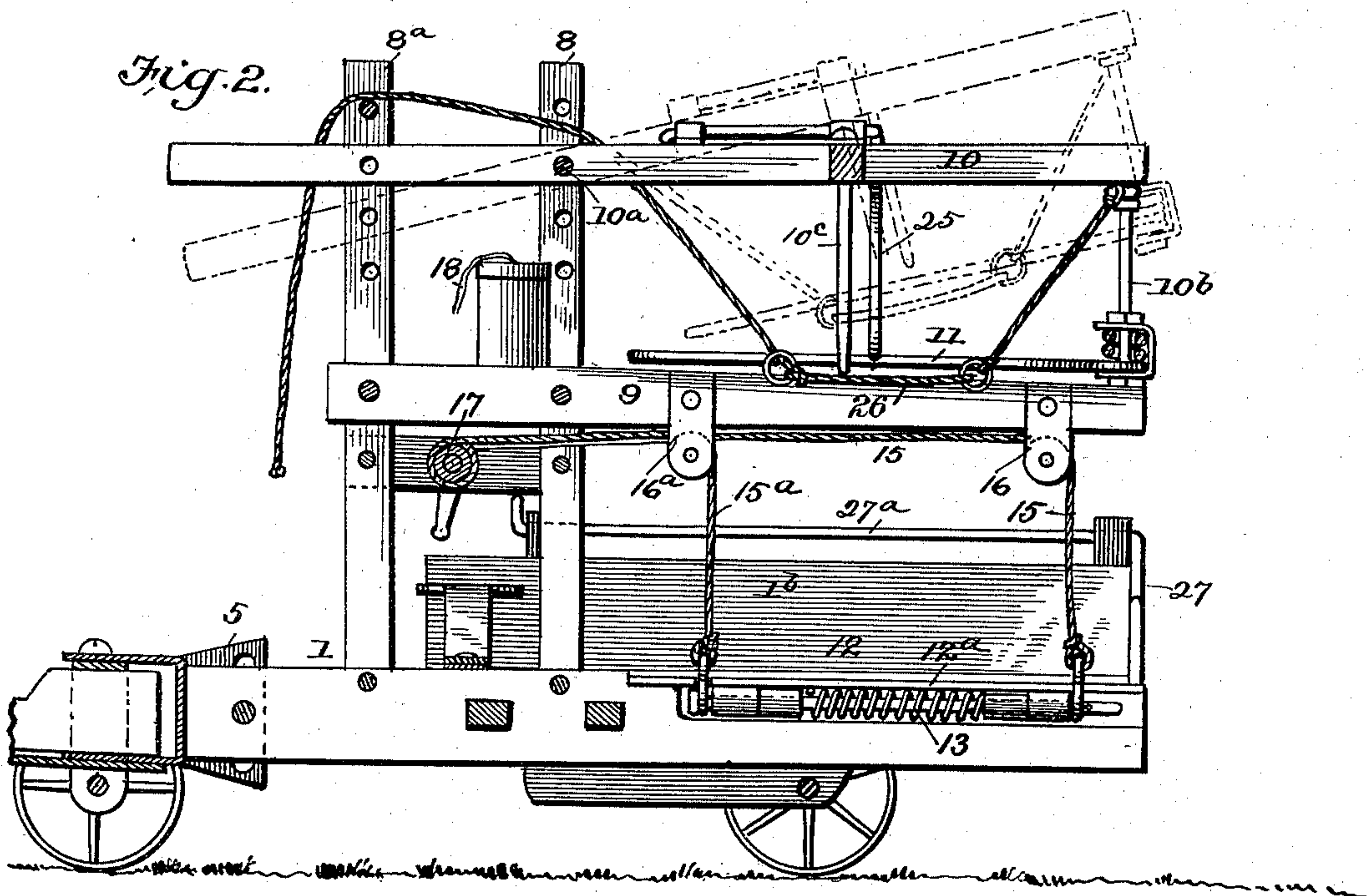
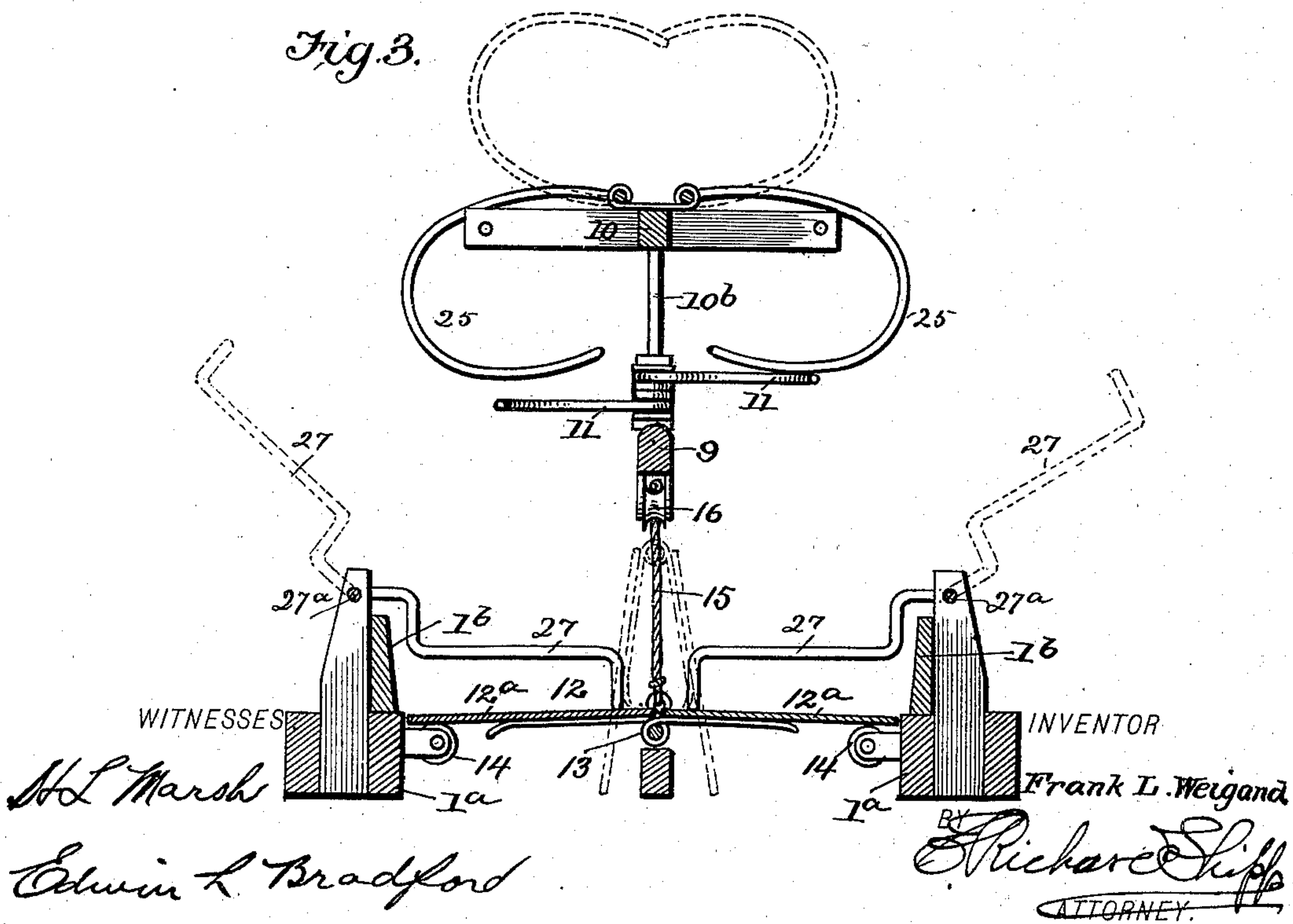


Fig. 3.



WITNESSES

H. L. Marsh

Edwin L. Bradford

INVENTOR

Frank L. Weigand

BY *Richard L. Sipp*
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANK LAURENCE WEIGAND, OF BURLINGTON, KANSAS, ASSIGNOR OF
ONE-HALF TO JOSEPH F. GRENNAN, OF SAME PLACE.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 612,537, dated October 18, 1898.

Application filed December 18, 1897. Serial No. 662,498. (No model.)

To all whom it may concern:

Be it known that I, FRANK LAURENCE WEIGAND, residing at Burlington, in the county of Coffey and State of Kansas, have invented a new and Improved Corn-Harvester, of which the following is a specification.

This invention relates to that class of corn-harvesters designed for cutting standing corn and delivering it onto a suitable platform until a desired amount is accumulated, when after being bound it is discharged onto the ground in a standing position.

This invention primarily has for its object to provide a machine of this character of a very simple and inexpensive nature in which the several parts are easily manipulated and arranged to facilitate the formation of the "shock" and then deposit such shock in the field at any desired point in a standing position.

This invention also seeks to provide a machine of this character having suitably-arranged devices which will serve to steady the top of the shock as it is accumulated and which can be instantly swung out of engagement with the shock as it is discharged to a standing position, whereby to free the upper end of the shock of contact with any fixed member which might serve to retard the free discharge thereof.

Another object of this invention is to provide a machine of this character having a novel form of dumping-platform which when lifted from its support closes up automatically and provides for openings through which the shock can drop in a standing position onto the ground.

The invention also has other minor objects in view, which will hereinafter be specifically referred to; and such invention consists in the peculiar combination and novel arrangement of parts, such as will be first described in detail and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved harvester. Fig. 2 is a longitudinal section thereof, the head-supporting yoke-frame being shown swung to its elevated position in dotted lines. Fig. 3 is a transverse sec-

tion, the folding platform being shown to its normal or expanded position in full lines and in its folded or elevated position in dotted lines.

Referring to the accompanying drawings, in which like numerals indicate like parts in all the figures, 1 indicates a platform of suitable length and width, which is supported, preferably near the rear end, on the axle 2, having supporting-wheels 3; the front end of such platform being supported on the wheels 4, which in practice may be held for vertical adjustment in its bearings 4^a, such bearings 4^a carrying the clevis or draft member 5, as clearly shown in Fig. 1 of the drawings.

The front end of the platform, which is of a substantially triangular form, is equipped with the conventional long cutter-blades 6, and adjacent the cutter end the platform is provided with two operators' seats 7, arranged one on each side of the center.

8 8^a indicate a pair of standards which extend up centrally from the platform 1, which support a horse or supporting-arm 9, which extends rearward the full length of the machine and forms the main support for the upper end of the shock as it is being formed.

The standard 8 extends above the arm 9 and forms the support for the swinging head or yoke-frame, which consists of a bar 10, extended longitudinally rearward over the arm 9, pivoted at 10^a to the standard 8 and provided at the rear end with a short pendent bar 10^b, to which the yoke 11 is secured, it also having a pendent rest member 10^c, adapted when the frame 10 is swung down to seat on the arm 9. The front end of the bar 10 is extended forward of its pivot and forms a handle which projects in convenient reach of either operator, whereby the yoke-frame can be swung up to the position shown in dotted lines in Fig. 2, for a purpose presently explained.

The yoke 11 in practice is formed of a stout spring wire or band, centrally secured to the member 10^b and having its ends extended horizontally forward, closing toward each other, and then curved outward, so as to provide a convenient guide-mouth and a pocket to receive the heads of the several stalks

which form the shock. By forming the yoke of spring metal it is manifest the sides of the pocket will expand to admit of a large quantity of "heads" when the shock is to be
 5 formed of more than the average number of stalks. The rest-bar 10^b also forms a central division member for dividing the upper or head end of the shock, which is also divided and supported by the longitudinal bars 10
 10 and 9.

By referring now more particularly to Fig. 2 it will be noticed the arm 9 and the yoke-frame extend beyond the rear end of the platform 1 over the supplemental platform 12,
 15 the construction of which forms the essential feature of this invention. This platform 12 is formed of two longitudinal members 12^a 12^a, pivotally joined to fold transversely of the machine and normally held by any suitable means—such as, for example, springs 13,
 20 as shown—to their extended position, as shown in full lines in Fig. 3. The springs 13 permit the pivoted section to fold together instantly under the weight of the shock and
 25 deposit the latter squarely upon the ground. When extended, the platform 12 is of substantially the width of the front platform 1, and when adjusted to form the support for the base of the shock the outer ends of members
 30 12^a 12^a are supported on roller-bearings 14 14, journaled on the inner face of the side extensions 1^a of the front platform-frame, said extensions 1^a having vertical flanges or guides 1^b to hold the butts of the stalks from
 35 sliding off the platform 12 sidewise. The object in providing roller-bearings for supporting the platform is to facilitate the movement inward of the members 12^a when the platform is elevated in the manner presently de-
 40 scribed.

The platform 12 is supported centrally at the front and rear ends on guy chains or ropes 15 15^a, one of which, 15, passes up over a pulley 16, hung pendent from the rear end of the
 45 arm 9, and a pulley 16^a on the front end of such arm 9, from which it passes to a windlass 17, journaled between the uprights 8 and 8^a on suitable horizontal cross-bars. The rope 15^a passes up over a pulley 16^a and then
 50 over the windlass 17.

The operation of my improved harvester is best explained as follows: When the parts are arranged as shown in Fig. 1, the machine is drawn forward between two rows of stalks,
 55 the operators (one at each side) gathering the stalks of their respective row as they are severed by the cutter-blades and placing them in position on the platform 12 with their heads in the yoke-pocket, the operator at one
 60 side resting his gathered stalks against one side of the arms 9 and 10, while the other operator deposits his stalks against the other side of such arms. When the shock is half built, on either side top fingers 25, pivoted to
 65 the bar 10 to swing transversely on the machine, as clearly shown in Fig. 2, are turned down at the will of the operator to hold the

shock from falling forward, such fingers being also turned down when the machine is going downgrade to hold the said shock from
 70 falling forward. After a suitable amount of stalks have been gathered to complete the shock the heads are bound in the usual manner by means of the clamp-rope 26, which
 75 draws the head of the shock tightly around the center projecting member 10^a and holds the head in position to be secured by the tying cord or wire 18, which in practice is held in a suitable box mounted on the arm 9, and
 80 to hold the shock from sliding off the back end of the machine as the same is drawn upgrade pivotal back fenders 27 are provided, (see Fig. 2,) which are adapted to be conveniently operated by means of crank mem-
 85 bers 27^a at the front end of the machine. The machine is then drawn to the point where it is desired to stand the shock, after which one of the operators turns the crank of the windlass 17 and draws up the guy-ropes, which being
 90 secured to the center of platform 12 elevates the platform, the side members of which, however, owing to the weight of the shock thereon, fold inward from under the shock, (see dotted lines, Fig. 3,) which then sinks to
 95 the ground and stands erect. The operator then elevates the yoke-frame and the yoke from the head of the shock, so as to free it from engagement with any fixed part except the longitudinal support 9 as the machine is drawn
 100 forward. The team is then started and the machine drawn away from the shock, it being manifest that as the platform 12 is practically closed up it will freely pull from under the
 105 shock without danger of pulling it over, as the upper or head end is suitably guided and supported by the bar 9. After the machine is pulled away from the shock and the platform-sections 12^a relieved of weight such sections (through the medium of the expansion-
 110 springs) will again assume their extended positions, it being obvious that by unwinding the windlass the platform 12 can be quickly turned to rest on the roller-bearings on frame sides 1^a.

While I prefer to use my dumping-platform and shock-head forming and guide means with a cutting mechanism as shown, it is manifest that such devices may be used in
 115 connection with any other shock-cutting means.

When the long triangularly-disposed knives such as shown are used, I prefer to also provide supplemental rotary cutters 20,
 120 secured on the long cutters or the platform in such a position that they will also form guides to bring the stalks in proper position for a quick cutting action.

While I prefer to arrange the several parts constituting my complete invention substantially in the manner shown and described, it
 130 is manifest the detailed arrangement of parts may be varied or modified without departing from the scope of the appended claims.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a corn-harvester of the class described, the combination with the means for supporting the head of the shock, of a platform formed of pivotally-joined longitudinal sections, held normally extended to form a support for the base of the shock, means for elevating such sections, up into the body of the shock, and springs connected with the pivoted sections, whereby they will be expanded automatically and will be closed together by contact with the shock, as set forth.

2. In a harvester of the class described, the combination with the main supporting-frame, and the supports for the shock-head, said main frame having rearwardly-extended side portions, of a dumping-platform formed of two pivotally-joined longitudinal sections, springs for holding such sections normally extended to a horizontal position, bearings on the main frame, extensions forming rests for the dumping-platform sections, when such platform is at its lowered position, and means for raising the platform - sections, said sections being adapted to close inward by the weight of the shock when raised off the rest-bearings as set forth.

3. In a corn-harvester of the class described, the combination with the main supporting-frame, a support connected thereto, forming a rest for the head of the shock, said frame having rest-bearings, of a dumping-platform formed of two longitudinal members, pivotally joined to fold together transversely of the main frame, said platform having springs for automatically holding the sections spread to a horizontal position, said platform being loosely held on the rest-bearings and adapted when elevated to have its members close together by contact with the shock, as specified.

4. In a corn-harvester, the combination

with the main or drag frame, having means for supporting the head of the shock, such means including a rearwardly-extending arm 9, and having rearward extensions provided with lateral inner bearings; of the platform formed of two longitudinal members pivotally joined in line with the center of the machine, springs for normally holding the members extended to a horizontal position, said platform being adapted to rest on the lateral main-frame bearings in its lowered position; guy-ropes hung pendent from the arm 9, secured to such platform, and a windlass on the main frame for operating such ropes, as specified.

5. In a corn-harvester, the combination of the main frame, the uprights 8 and 8^a, arranged in pairs, the rigid rearwardly-extending arm 9, mounted between the uprights 8 and 8^a, the bar 10, located above the arm 9, and pivoted between the uprights, the pendent member 10^b, mounted on the bar 10, and resting upon the arm 9, and a yoke-frame carried by the pendent member 10^b, substantially as shown and described.

6. In a corn-harvester of the character described; the combination with the main or drag frame, having long cutters 6, and rotary cutters 20, arranged substantially as shown, of the standard 8, having a rearwardly-extending arm 9; the yoke-carrying frame hinged on the standard 8 and having a pendent member adapted to rest on the arm 9; the dumping-platform, consisting of longitudinally-pivotal members adapted to fold inward toward each other when elevated and means for elevating the said platform, all being arranged substantially as shown and described.

FRANK LAURENCE WEIGAND.

Witnesses:

CHARLES WEIGAND,
W. J. WEIGAND.