

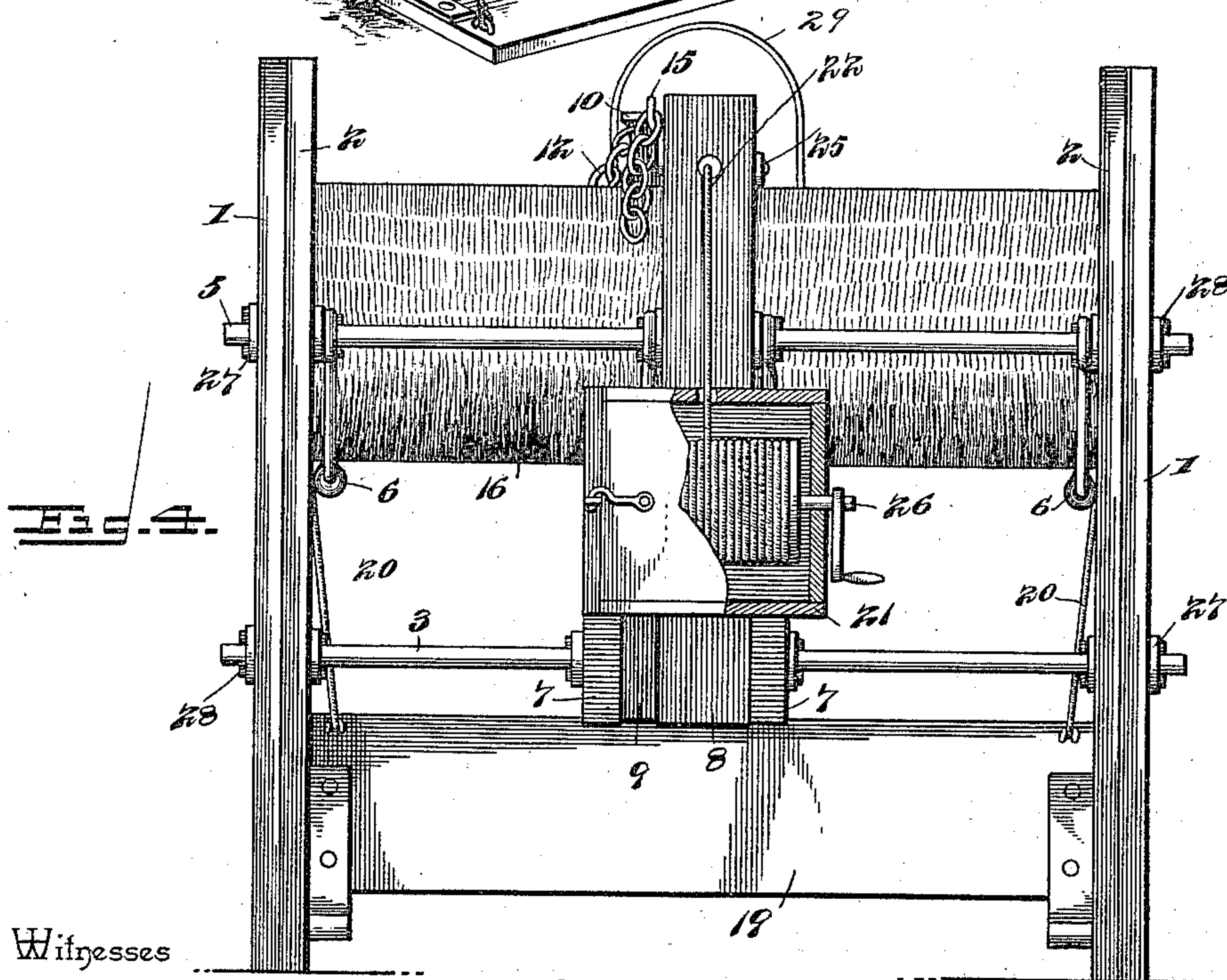
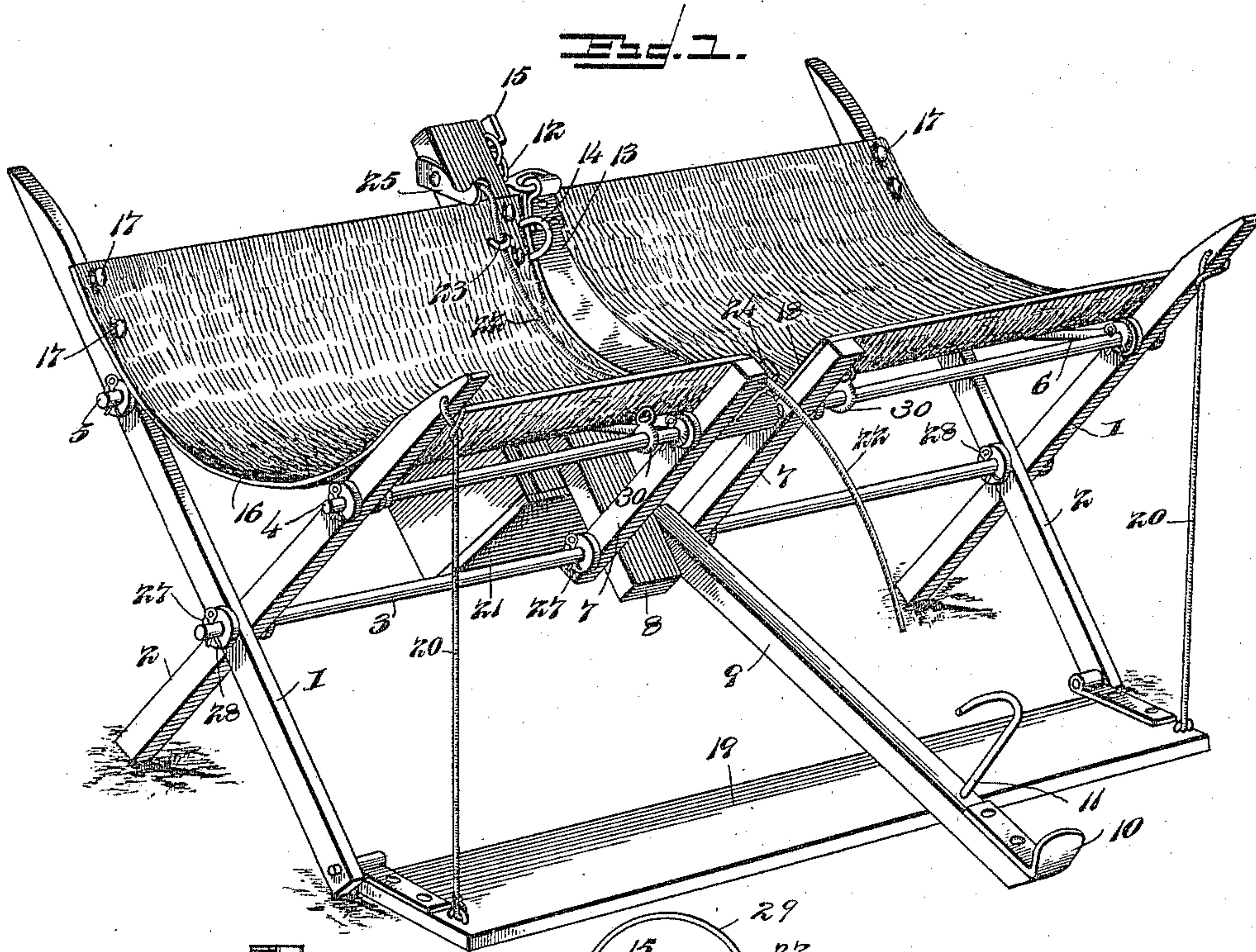
(No Model.)

2 Sheets—Sheet 1.

C. A. GORDON.
FODDER BINDER.

No. 572,980.

Patented Dec. 15, 1896.



Inventor

Witnesses

E. H. Stewart
V. B. Willyard.

By *his* Attorneys, *Charles A. Gordon*

CA Snow & Co.

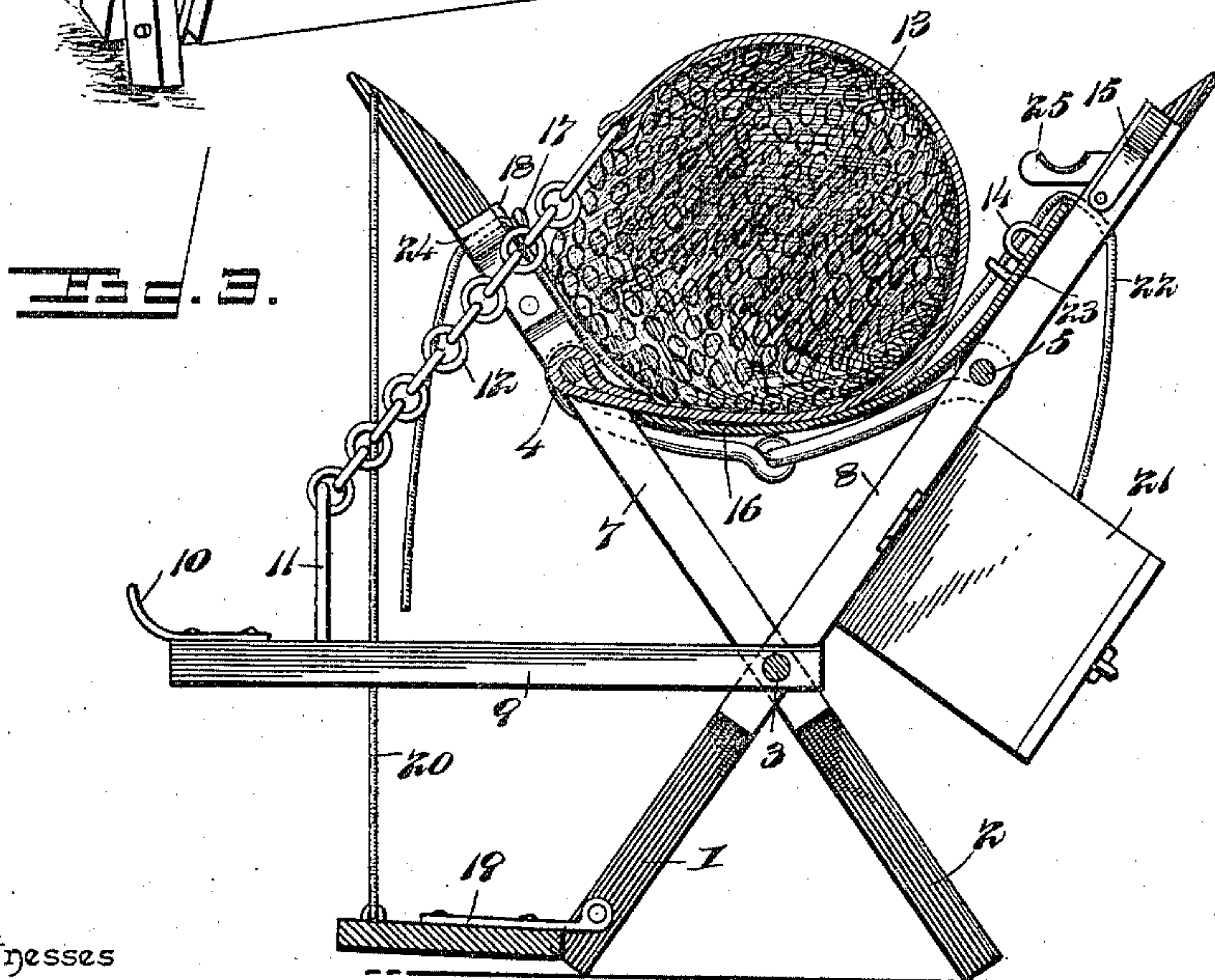
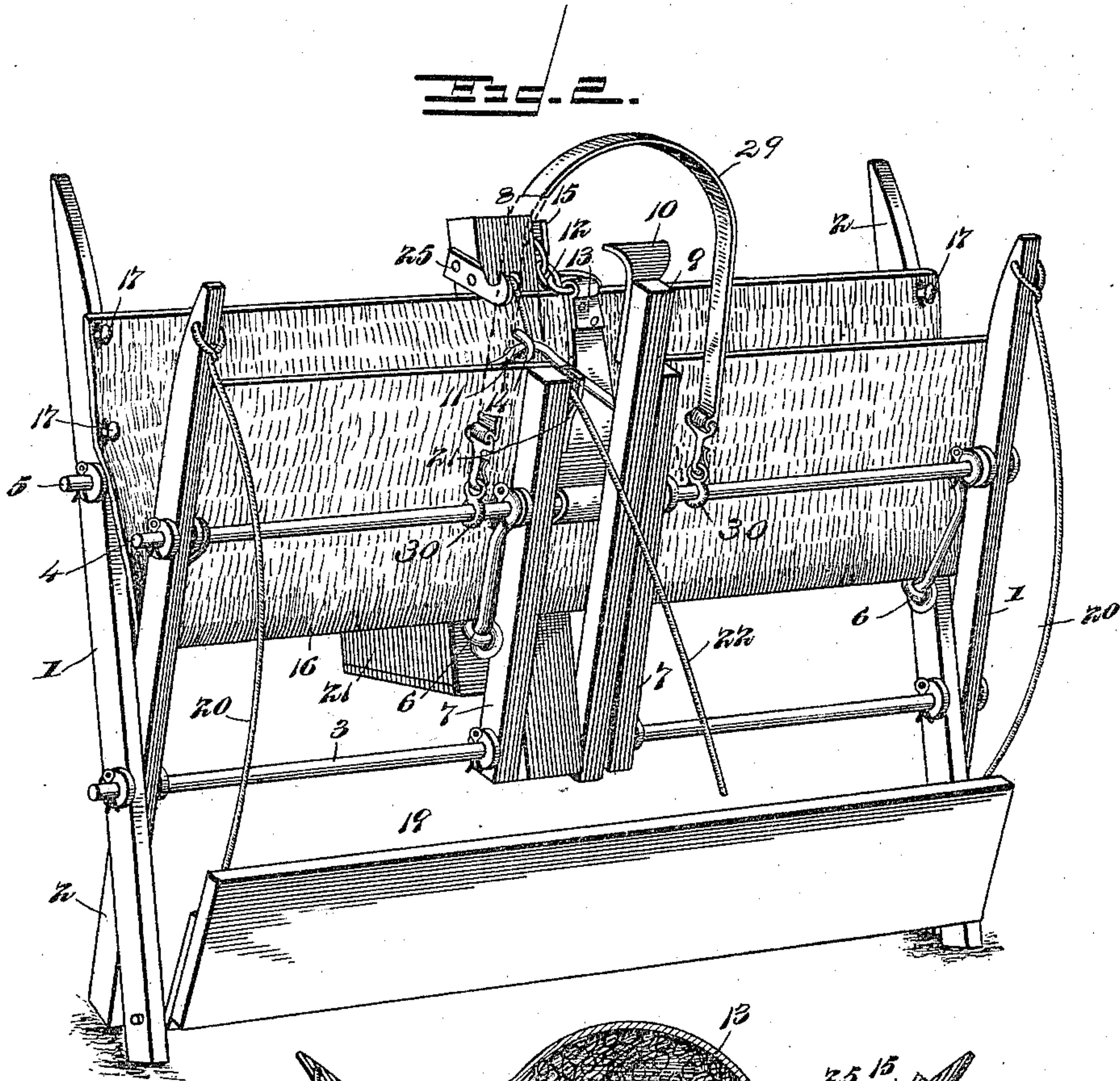
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UNITED STATES PATENT OFFICE.

CHARLES A. GORDON, OF SCRUGGS, MISSOURI, ASSIGNOR OF ONE-HALF TO
CHARLES A. SULLENS, OF SAME PLACE.

FODDER-BINDER.

SPECIFICATION forming part of Letters Patent No. 572,980, dated December 15, 1896.

Application filed March 28, 1896. Serial No. 585,258. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. GORDON, a citizen of the United States, residing at Scruggs, in the county of Cole and State of Missouri, have invented a new and useful Fodder-Binder, of which the following is a specification.

This invention relates to fodder-binders, and has for its object to provide a device of this character which is portable, capable of folding into a compact form, effective for the purpose designed, and which will enable the farmer to firmly and securely bind the fodder, whereby the latter can be economically fed and stored for future use.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the appliance as it will appear when in position for use. Fig. 2 shows the device folded. Fig. 3 is a transverse section showing a bundle held in the embrace of the clamp-band or temporary binder. Fig. 4 is a rear elevation of the device, parts of the twine-box being broken away to show the position of the spindle.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference-characters.

The framework of the appliance consists, essentially, of end pieces formed of corresponding bars 1 and 2, crossing near their lower ends, a longitudinal rod 3, pivotally connecting the bars 1 and 2 at their point of crossing and at the same time joining the end pieces, and upper longitudinal rods 4 and 5, connecting the corresponding bars 1 and 2 near their upper ends and supplementing the tying action of the longitudinal rod 3, the whole forming a light, substantial, and durable structure. Linked connections 6 unite the rods 4 and 5 near their ends and at a point

intermediate of their ends and serve to limit the outward movement or spread of the bars 1 and 2 at their upper ends, and by having these connections 6 linked or flexible they will close, so as to admit of the folding of the structure when it is required to reduce the same to a compact form. Parallel stay-bars 7 connect the rods 3 and 4 at a point intermediate of their ends and stiffen and brace the same, and a corresponding stay-bar 8 connects the rods 3 and 5 at a middle point and comes opposite the space between the stay-bars 7. These bars 7 and 8 have loose connection with their respective rods, so as to admit of the structure being easily folded when desired.

A lever 9 is mounted upon the rod 3 between the lower ends of the stay-bars 7, and its outer end is supplied with a foot-rest to enable the operator to secure a firm purchase upon the outer end of the lever with his foot when it is required to draw the clamp-band or temporary binder tightly about the bundle. This foot-rest is curved upwardly at its outer end to prevent the slipping of the foot when exerting a downward pressure upon the lever 9 to compress the bundle. A hook 11 is secured to the lever near its outer end, and is adapted to engage with one of the links of a short chain 12 at the free end of the clamp-band 13 and to engage with a staple or eye 14 near the upper end of the stay-bar 8, so as to hold the structure in folded relation.

The clamp-band 13 is secured at one end to that portion of the longitudinal rod 4 coming between the stay-bars 7, and is provided at its free end with a short chain 12, the links of which are adapted to be engaged by the hook 11 or which are adapted to engage with a hook 15 at the upper end of the stay-bar 8, so as to hold the clamp-band either out of the way or in position when forming a bundle. An apron or support 16 is stretched between the upper ends of the bars 1, 2, 7, and 8 and receives the fodder during the formation of the bundle. This apron or support is preferably a textile fabric and is removably attached to the several bars, preferably by being supplied with buttonholes to receive buttons 17, attached to the bars to which the apron or support is secured. A

notch 18 is formed in the front edge of the apron 16 opposite the space between the upper ends of the stay-bars 7 and affords clearance for the clamp-band or temporary binder 13.

A foot-board 19 has pivotal or hinge connection with the lower ends of the bars 2 and provides a support for the operator and obviates the necessity of his standing in mud when the fodder is located upon low and marshy ground. Cords or chains 20 connect the outer corners of the foot-board with the upper ends of the bars 1, the parts being so disposed that upon folding the structure the foot-board will likewise close without any care or attention on the part of the attendant and will remain folded until the appliance is again set up for use. These cords or chains 20 also support the outer portion of the foot-board and prevent it from sinking into wet and marshy land.

A twine-box 21 is attached to the lower portion of the stay-bar 8 and receives the cord or twine by means of which the bundle is permanently bound, the said cord or twine 22 passing through an opening in the box and through an opening near the upper end of the bar 8, thence through a guide-eye 23, and engaged at its outer end by a spring-holder 24, applied to the upper end of one of the stay-bars 7. A cutter 25 is secured to the upper end of the stay-bar 8 and provides a convenient and ready means for severing the cord or twine 22 when it is required to secure a length thereof sufficient to bind a bundle. In some instances it is desirable to provide the twine-box with a spindle 26, upon which short lengths of cord or twine are wound, said lengths being tied together after being gathered from the thresher.

The operation of the binder is as follows: The cord or twine 22 is passed across the apron or support 16 and its free end is engaged with the spring-holder 24 and the clamp-band or temporary binder is similarly placed upon the apron or support. The fodder to be bound is placed upon the apron or support 16 until a sufficient quantity has accumulated to form a bundle of required size, after which the free end of the clamp-band or temporary binder is passed over the bundle and engaged with the hook 11, when upon pressing the outer end of the lever 9 downward the clamp-band will be drawn tightly about the bundle, and while the bundle is held in the embrace of the temporary binder the cord or twine 22 is drawn around the bundle and its ends secured or knotted in any convenient way, after which the temporary binder is released and the bound bundle thrown aside, and the operation just described is repeated. The several bars are held against displacement or movement along the longitudinal rods by means of washers 27 and pins 28, the pins passing through openings in the rods and the washers being interposed between the pins and the adjacent sides of the bars

to prevent the wearing away and cutting of the latter by the pins, as will be readily understood. When the structure is folded, the hook 11 is engaged with the staple or eye 14, thereby holding the parts in their folded condition, as most clearly shown in Fig. 2.

For convenience in transporting the device from one shock to another a shoulder-strap 29 is employed, and this strap is engaged at its ends with rings 30 on the longitudinal rod 4 adjacent to the stay-bars 7, the connection being effected in any convenient way, preferably by means of snap-hooks, which admit of the shoulder-strap being readily disconnected, so as to be out of the way, and quickly applied when required for use. This strap 29 is engaged with the shoulder or upper portion of the person in any convenient way, so as to lessen the effort required to be exerted when carrying the device from one place to another.

Having thus described the invention, what is claimed as new is—

1. In a fodder-binder, the combination of crossed bars, a longitudinal rod pivotally connecting the bars at their point of crossing, other longitudinal rods connecting the bars near their upper ends, linked connections uniting the longitudinal rods at their ends and intermediate of their ends, a flexible support or apron having connection with the upper ends of the aforesaid bars and a temporary binder, the parts being disposed to admit of the structure folding, substantially in the manner set forth for the purpose described.

2. In a fodder-binder, the combination of end pieces composed of crossed bars, a longitudinal rod connecting the end pieces and extending through the said bars at the point of crossing, upper longitudinal rods connecting corresponding bars of the end pieces, connections uniting the upper longitudinal rods at different points in their length to distribute the strain and admit of the structure folding, stay-bars connecting the lower longitudinal rod with the respective upper longitudinal rods, an apron or flexible support secured to the upper ends of the crossed and stay bars and a temporary binder, substantially as and for the purpose set forth.

3. In a fodder-binder, the combination of end pieces composed of crossed bars, a longitudinal rod pivotally connecting the bars at the point of crossing, upper longitudinal rods connecting corresponding bars, parallel stay-bars connecting the lower and an upper longitudinal rod, another stay-bar connecting the opposite longitudinal rod with the lower longitudinal rod and coming opposite the space between the parallel stay-bars, a flexible support secured to the upper ends of the crossed and stay bars and having a notch opposite the space between the upper ends of the parallel stay-bars, and a clamp-band adapted to pass through the notch in the support and secured to that portion of the upper longitudinal rod coming between the upper

ends of the parallel stay-bars, substantially as set forth.

4. The combination with a folding fodder-binder comprising crossed bars pivotally connected at the point of crossing, of a foot-board having pivotal connection with the lower ends of corresponding crossed bars, and connections between the outer portion of the foot-board and the upper ends of the opposite crossed bars, substantially as set forth for the purpose described.

5. The herein-described portable and folding fodder-binder, comprising crossed bars, a longitudinal rod pivotally connecting the crossed bars, upper longitudinal rods connecting corresponding crossed bars, connections uniting the upper rods at different points in their length, parallel stay-bars connecting an upper with the lower longitudinal rod, another stay-bar connecting the opposite with the lower longitudinal rod and coming opposite the space between the parallel stay-bars, a cutter, staple and hook applied to the upper end portion of the latter stay-bar, a spring-

holder applied to one of the parallel stay-bars, a twine-box supported by the stay-bar bearing the cutter, a lever having a foot-rest at its outer end and mounted upon the lower longitudinal rod, a clamp-band having connection with that portion of the upper rod coming between the parallel stay-bars, a hook near the outer end of the said lever to engage with the free end of the clamp-band and with the staple near the upper end of the stay-bar bearing the cutter, a flexible support secured to the upper ends of the several bars, a foot-board having pivotal connection with the lower ends of corresponding end bars, and connections between the outer portion of the foot-board and the adjacent upper ends of the crossed bars, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES A. GORDON.

Witnesses:

THOS. B. MAHAN,
H. P. CHURCH, Jr.