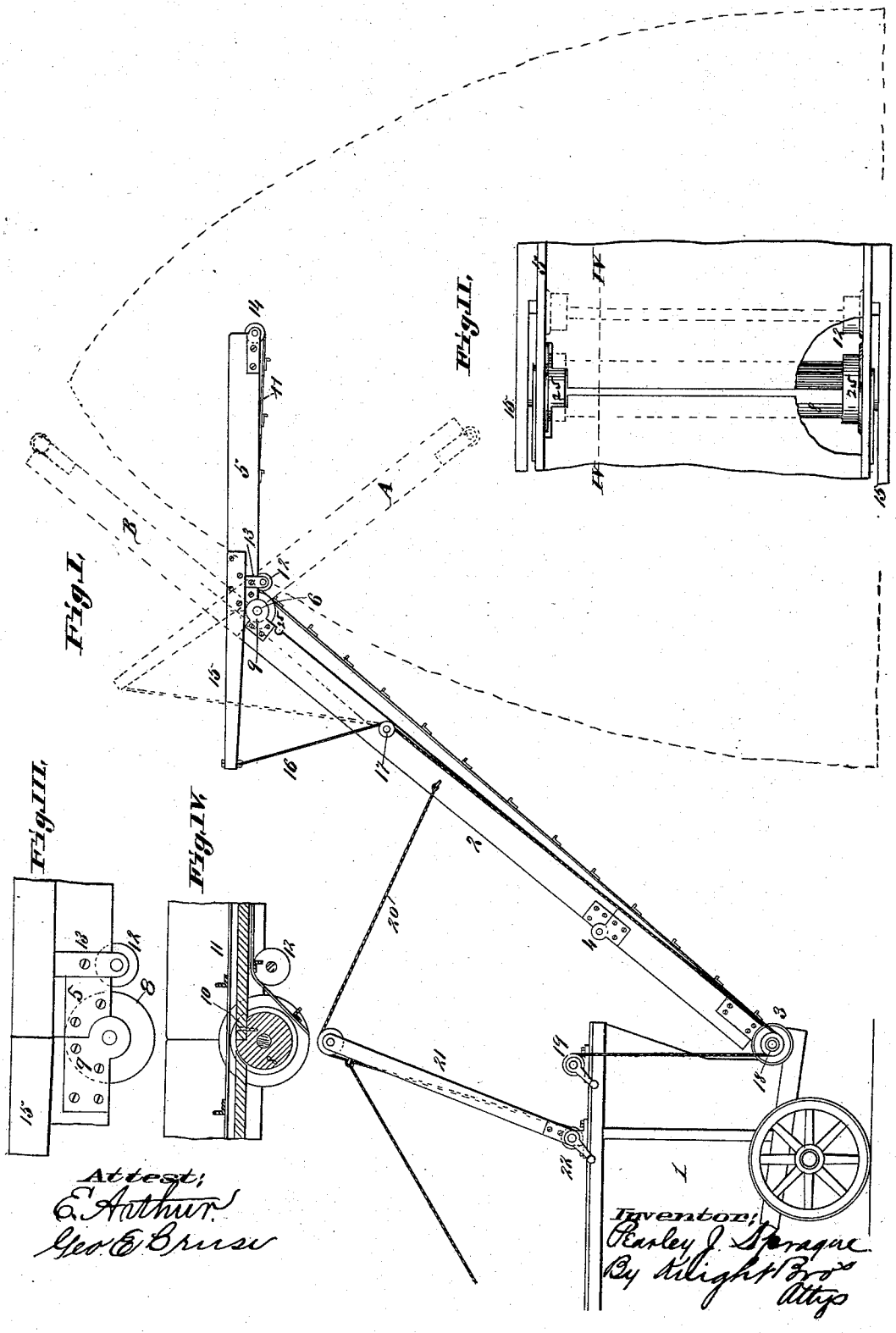
(No Model.) 2 Sheets—Sheet 1.

P. J. SPRAGUE.

STRAW STACKER.

No. 406,788. Patented July 9, 1889.



N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

P. J. SPRAGUE

STRAW STACKER.

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Fig. 1.

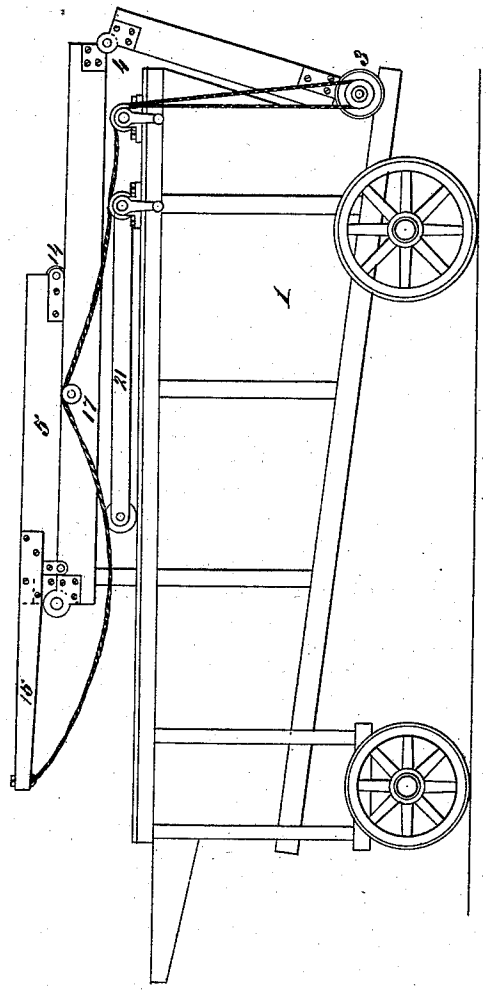
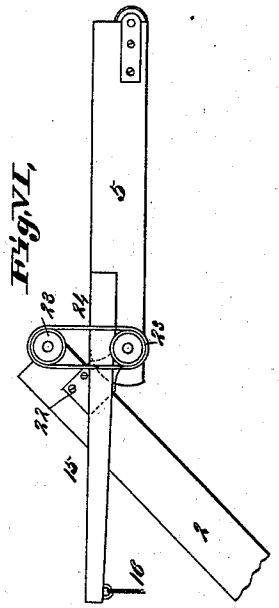


Fig. 2.



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UNITED STATES PATENT OFFICE.

PEARLEY J. SPRAGUE, OF ADRIAN, MISSOURI.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 406,788, dated July 9, 1889.

Application filed August 20, 1888. Serial No. 283,246. (No model.)

To all whom it may concern.

Be it known that I, PEARLEY J. SPRAGUE, of Adrian, in the county of Bates and State of Missouri, have invented a certain new and useful Improvement in Straw-Stackers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is a side elevation of my improved stacker. Fig. II is a detail top view or plan enlarged. Figs. III is a detail side view enlarged. Fig. IV is a section taken on line IV IV, Fig. II. Fig. V is a side elevation showing the stacker folded on top of the separator or in traveling position. Fig. VI represents a slight modification.

My invention relates to a device for use in connection with a thrashing-machine or grain-separator for stacking straw; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents a thrashing-machine or grain-separator.

2 represents the main section of the stacker. This I prefer to secure to the separator by a hinged joint 3 after the usual method; but it may of course be mounted on a separate support, if desired. It has preferably a joint 4, which permits it to fold upon the separator, as shown in Fig. V. At the outer end of this main section 2 of the stacker is a section 5, which in my preferred form is hinged to the main section, as shown at 6. The hinge is of such a construction that the section 5 is allowed to fold in a downward or rearward direction in contradistinction to a forward direction, as does the joint at 4. In other words, it is a rule-joint. It is to this section 5 and to the manner of connecting it to the main section 2 of the stacker, and also to the manner of operating it, that my invention relates. This section is capable of being moved into the position shown by dotted lines A, Fig. I, (or still farther in a rearwardly direction, if desired,) and from this position to a position in line with the main section 2 of the stacker, as shown by dotted lines B. The object in having this section of the stacker arranged to be swung or moved in this manner is to distribute the straw substantially over the same spot or center, and to deliver it from a suitable elevation regardless of the height of the stack—that is to say, when the stack is first commenced the section 5 is turned down, as shown by dotted lines A, and delivers the straw from a low elevation and over a certain point on the ground. Then, as the height of the stack increases, the outer end of the section is gradually raised to the position shown by dotted lines B. As the section 5 approaches a horizontal position, (shown at 14,) the stacker may, as a whole, be gradually drawn backward far enough to keep the discharge end on a line vertically over the center of the stack. Then as section 5 rises above the horizontal position the stacker can be moved forward, as required, to finish the stack, thus being kept at a proper elevation relatively to the stack and delivering the straw substantially in the same vertical line.

My preferred manner of connecting the section 5 to the main section 2 of the stacker is by a rule-joint, and consists in securing a cylindrical part 8 to the main section 2 by journal-brackets 9, or by other suitable means, and rigidly securing to this cylindrical part the inner end of the section 5, for which purpose the part 8 may be notched out, as shown at 10, Fig. IV, to receive the floor of the section 5, which would be nailed or screwed thereto. As the section 5 is raised and lowered the cylindrical part 8 turns in its bearings 9, and by following the vertical motion of the section 5 effectually closes what otherwise would be an opening in the floor between the sections 2 and 5. The raddle 11 passes over the cylindrical part 8 on idlers 25, mounted loosely thereon, in going forward, and under part 8 and idlers 25 in going back to the separator, &c., affording an easy movement to the section and avoiding much friction. The raddle 11 passes over the part 8 in going forward, and under it in going back to the separator, and it is supported at the inner end of the section 5 on rollers 12, secured to the section by brackets 13, as shown. The outer end of the section 5 has a roller 14, around which the raddle passes. By adopting the rule-joint just described in my device the yawning opening left between the one section and the

other in stackers generally is obviated, and hence whatever material—be it it straw, grain, or coal—that is carried up to said opening would be swallowed up, as it were, and a large portion not carried to the point desired. By the employment of this joint I am enabled to employ a simple elevating device—*i. e.*, a raddle—whereas, were there the yawning opening spoken of, this would not do; but an elevator having cups or buckets must be employed. The symmetry of the floor between the two sections is preserved by this rule-joint. As a means for raising and lowering the outer end of the section 5, I have shown the section provided with arms 15, to the inner ends of which are secured ropes 16, that pass under rollers 17, secured to the main part 2, and from thence under rollers 18, located at or near the joint 3, and thence to a windlass 19. By turning the windlass in the desired direction the outer end of the section 5 will be raised or lowered, as will be plainly understood.

20 represents a rope, 21 a derrick, and 22 a windlass for supporting and adjusting the stacker as a whole when desired. When the stacker is folded for the road, it assumes the position shown in Fig. V, the section 5 folding back onto the main section 2; or, if preferred, the section 5 may project over the front part of the separator, instead of folding backward on section 2.

In Fig. VI I have shown a slight modification, where the inner end of the section 5 is secured by brackets 22 to the main section of the stacker, and where a separate raddle is provided for each, the raddle of the section 5 being driven from the raddle of the main section 2 of the stacker by means of pulleys 23 and a belt 24.

I claim as my invention—

1. In a straw-stacker, the combination of a main section and an outer section having floors, the outer section being connected with the main section by journal-brackets 9, and a cylindrical part 8, rigidly secured to the inner end of the outer section, the floor of the latter being tangential thereto, whereby said cylindrical part 8 is caused to follow the motion of the outer section, thus preserving the symmetry of the floor between the two sections, substantially as set forth.

2. A straw-stacker having a main section and an outer section, the latter being jointed to the former by means of a notched cylindrical rigid part 8, in which the inner end of the outer section fits, and journal-brackets for said roller on the main section, a raddle, and idlers 25, over which the raddle passes, substantially as set forth.

3. In a straw-stacker having a main section and an outer section united with the latter by a hinged joint, both of said sections having carrying-belts, rigid arms secured to and projecting from the outer sections, a windlass, ropes connecting said arms with the windlass for controlling the outer section, idlers 25 in line with the hinge-joint, idlers 12, and a raddle passing over the sections and over and under idlers 25 and over idlers 12, substantially as set forth.

4. In a straw-stacker, the combination of the main section, an outer section hinged to the main section, arms 15, secured to the outer section, ropes 16, secured to the arms, windlass 19, to which the ropes are secured, raddle 11, and rollers 12, substantially as and for the purpose set forth.

PEARLEY J. SPRAGUE.

In presence of—
J. H. WALKER,
H. P. EDWARDS.