C. RUNDELL.

Hay Stacker.

No. 54,213. Patented April 24, 1866.

Fig. 1

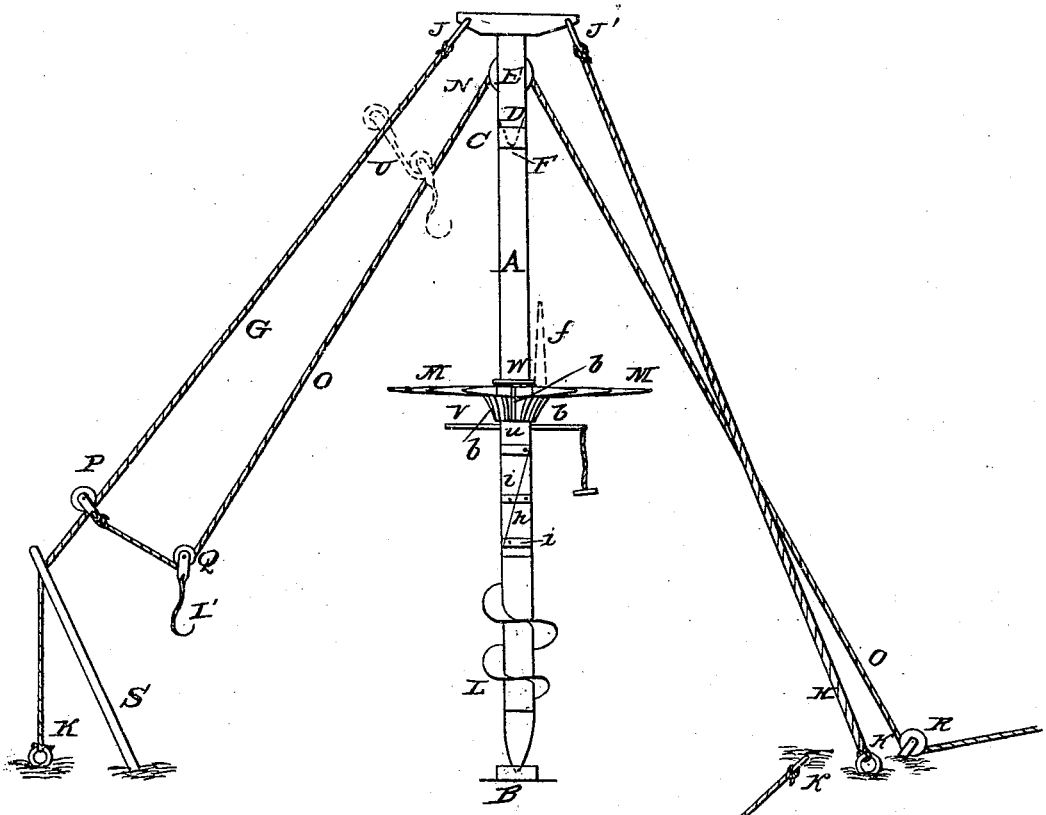

Fig. 2

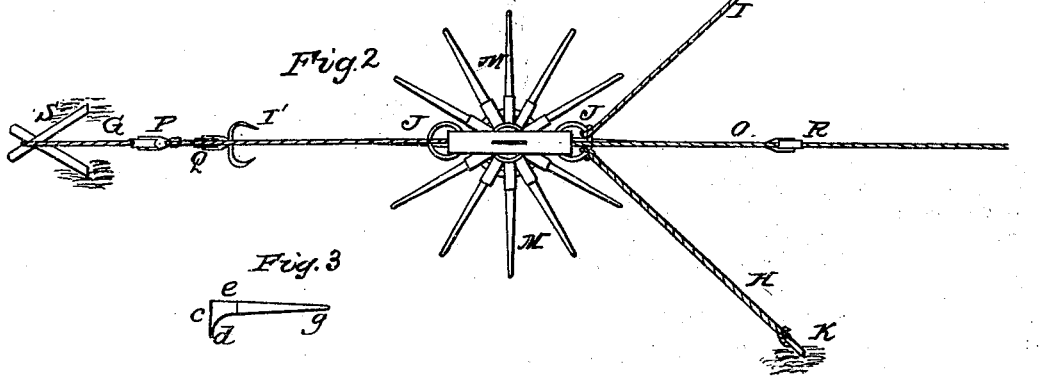

Fig. 3

WITNESSES

W. H. Burridge

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UNITED STATES PATENT OFFICE.

C. RUNDELL, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN HAY AND STRAW STACKERS.

Specification forming part of Letters Patent No. **54,213**, dated April 24, 1866.

To all whom it may concern:

Be it known that I, C. RUNDELL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hay, Grain, and Straw Stacking Machines; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view of the stacker; Fig. 2, a top view of the same; Fig. 3, a view of detached section.

Like letters refer to like parts in the several views presented.

A, Fig. 1, is an upright standard of wood, the lower end of which terminates in a point. B is a step in which the point of the standard sets and turns. C is a collar surrounding the joint D, and by the means of which the upper end of the standard is connected to the head E. This joint permits the standard to turn independently of the head, and is made as follows: The lower end of the head is fitted into the upper end of the standard in the manner indicated by the dotted line F, forming thereby a pivoted joint, the head being held permanently by the guy-ropes G H I, Figs. 2 and 3. The guys are connected to the head of the stacker by the rings J J′. The other ends are fastened to the ground by the rings K K′, or by any other suitable means. These guys are for the purpose of holding the standard in an upright position while in use.

L is a spiral blade or screw. M is a revolving reel, and constructed in the following manner: *a* is a thimble and constitutes the head of the reel. Projecting from the side of the thimble are the shoulders *b*, between which the arms of the reel are placed and secured by a wire passing through the end of them, a hole being provided for that purpose, as will hereinafter be shown.

The arms of the reel are constructed in two separate parts, the end *c* being made of iron or any other suitable material, and is in the form of a socke. By means of the foot *d*, projecting downward and resting against the side of the thimble or head of the reel, they are kept in a horizontal position, as shown in Fig. 1; also, by the wire passing through the hole *e*, Fig. 3, as above stated, permits of the arms being turned upward against the sides of the standard, as indicated by the dotted lines *f*. The purpose of this will hereinafter be described.

The outer ends of the arms *g*, Fig. 3, are made of wood, and fitted into the socket-section of the arm above described.

N, Fig. 1, is a sheave. O is a run-rope, one end of which is fastened to the movable pulley P, thence passing under the pulley Q, thence over the sheaves N, down to and under the pulley R. The purpose of this rope will be shown hereinafter.

S is a cross-truss or brace for the purpose of raising the guy up out of the way, in order to give more room between the guy and the standard.

Having thus described the several parts of the stacker, we will now proceed to explain its operation, which is as follows:

The standard, on being erected where it is desired to build the stack, the load of grain, or other material to be stacked, is then driven between the truss and standard. The pulley P and the pulley Q, to which the horse-fork T is hung, are then brought down and take the grain or hay from the load or ground, as the case may be. It is then carried up by the several pulley and run-rope, above described, in the direction of the dotted pulley U above the reel, upon which it is dropped by tripping the fork in the usual way. When the hay is deposited upon the reel it is then carried around to any side of the mow where it may be wanted, and is then raked off by the hands engaged upon the stack, to be spread and placed about as desired.

In order to accommodate the reel to the increasing height of the stack, it can be raised up by turning the standard by means of the lever V in the direction of the drift of the spiral blade or screw, the under side of which, as it turns, presses down upon the hay, and thereby causes the standard and also the reel to rise upward, the guys being loosened at the ground for this purpose. In this way the standard and reel can be raised to any height it may be desired to build the mow.

On finishing the stack the standard can then be removed by turning or screwing it out in the manner above described, leaving a hole from the top to the bottom of the mow, afford-

ing by this means a full and complete ventilation of the stack.

To facilitate the moving of the stacker from place to place, the reel can be closed up around the standard, as above mentioned. The ring W is then slipped down over the arms, and by this means they are held securely together. So, also, the lower part of the standard, around which the screw is placed, can be detached from the upper, the two parts being connected by the diagonal joint *h*, the bands *i* holding the two sections firmly together. When the standard is erect, by detaching the standard and folding up the arms of the reel, the whole can be moved without much trouble or danger of breaking.

What I claim as my improvement, and wish to secure by Letters Patent, is—

1. The employment of the screw-elevator for the purpose of raising the frame or standard in the mow or stack in stacking hay, grain, or straw, in the manner substantially set forth.

2. The screw and standard, or its equivalent, when arranged and operated conjointly in the manner and for the purpose set forth.

3. The reel connected with the pole or standard, substantially and for the purpose specified.

4. The pulley, sheaves, and standard, with the run-cord and pulley, constructed so as to operate conjointly as and for the purpose herein described.

C. RUNDELL.

Witnesses:
W. H. BURRIDGE,
FRANK ALDEN.