D. R. LONG.

HAY STACKER.

APPLICATION FILED SEPT. 1, 1908.

925,816.

Patented June 22, 1909.

2 SHEETS—SHEET 1.

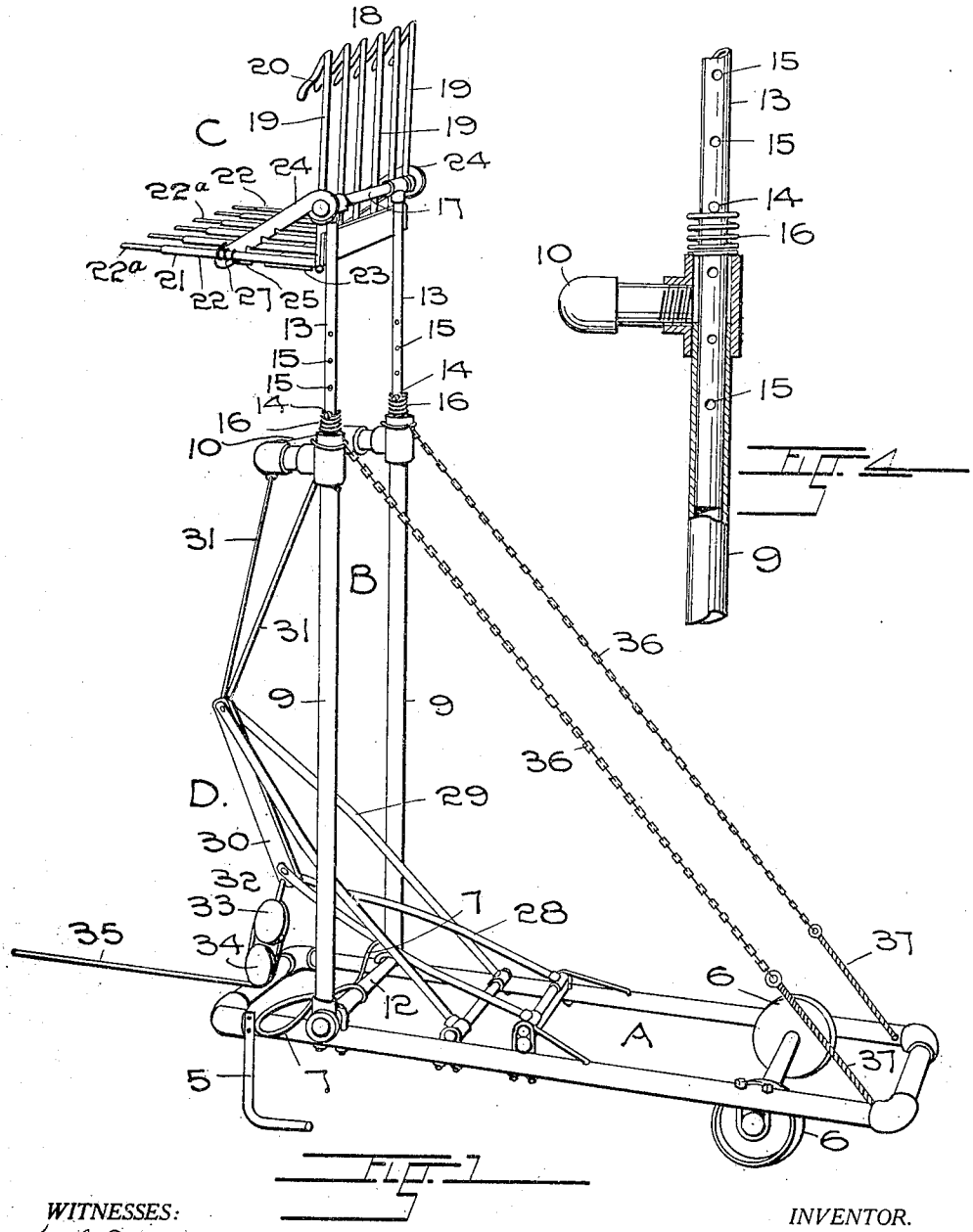


FIG. 4

FIG. 1

WITNESSES:

T. M. Stumpf

John Rollandet

INVENTOR.

D. R. Long

BY

ATTORNEY.

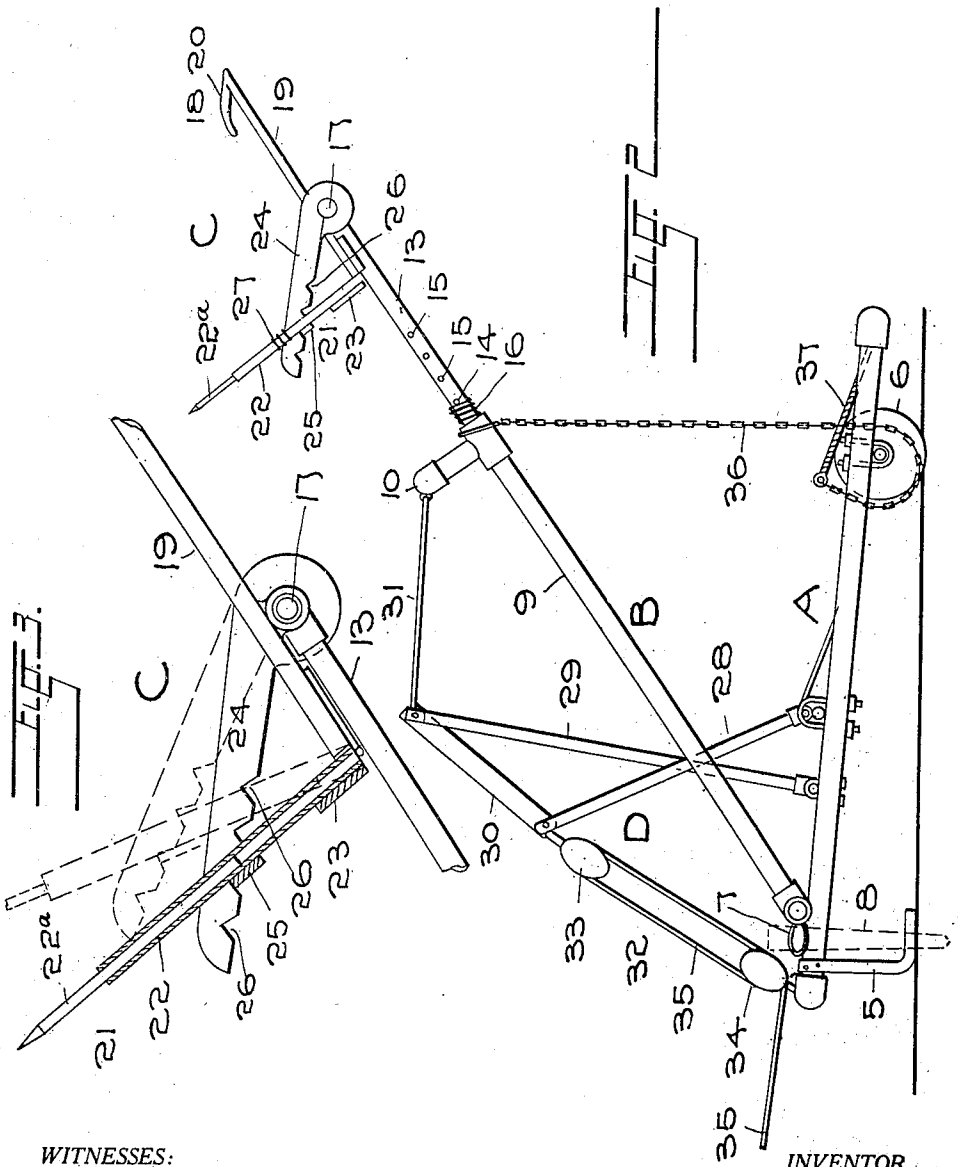
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WITNESSES:

A. M. Stump

John Rollandet

INVENTOR.

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UNITED STATES PATENT OFFICE.

DAVID R. LONG, OF WELDONA, COLORADO.

HAY-STACKER.

No. 925,816. Specification of Letters Patent. Patented June 22, 1909.

Application filed September 1, 1908. Serial No. 451,166.

To all whom it may concern:

Be it known that I, DAVID R. LONG, a citizen of the United States of America, residing at Weldona, in the county of Morgan and State of Colorado, have invented certain new and useful Improvements in Hay-Stackers, of which the following is a specification.

This invention relates to new and useful improvements in hay stackers and its object is to provide an apparatus of the class named which combines simplicity of construction, with durability and great practicability in use. I attain this object by the mechanism illustrated in the accompanying drawings in the various views of which like parts are similarly designated and in which—

Figure 1— is a perspective view of the apparatus showing the ricker head in the elevated position, Fig. 2— a side elevation of the machine, with the head partly lowered, Fig. 3— an enlarged fragmentary sectional view of the ricker head, and Fig. 4— an enlarged fragmentary, partly sectional side elevation of the extendible fork frame.

Referring to the drawings, let the reference character A designate the preferably rectangular base or bed frame, B the thereto pivotally secured fork frame, C the ricker head at the upper extremity of the latter and D the lever system by means of which the movements of the fork frame are controlled.

The frames A and B are composed of standard tubing or gas pipe joined by means of elbows, tees and other fittings and the first named frame is supported near its front end, upon stationary legs 5 and at its opposite extremity, upon a pair of wheels 6. The base A is furthermore provided, in proximity to its front end, with wire loops 7 which, extending beyond its sides, are in practice, placed around stakes 8 (shown in broken lines in Fig. 2), which, being driven into the ground, serve to fix the device in a stable condition.

The pivoted fork frame B consists of two parallel standards 9 which are connected at their upper and lower extremities by cross pieces 10 and 12, while extension tubes 13 are telescopically arranged within the standards 9 and held in an adjusted position relative thereto by means of transverse pins 14 which project through one of a plurality of longitudinally arranged apertures 15 in the tubes, in engagement with coiled springs 16, which are supported upon the upper extremities of the standards 9.

The above described arrangement renders the fork frame longitudinally adjustable to suit the height of the stack upon which the hay is deposited, and the springs 16 serve as cushions which deaden the jar caused by the downward movement of the inner tubes 13 which are connected at their upper extremities by a transverse member 17 to which the ricker head C is secured. The latter consists of a fork 18, composed of a series of fixed tines 19 which are formed at their outer extremities with recurved barbs 20 whose function is to retain the hay upon the fork during the upward movement of the head. Pivotally secured at the lower end of the fork 18, is a movable fork-section 21, which is composed of a series of teeth 22 connected by cross bars 23 and 25. The section 21 may be adjusted to any one of a plurality of angles relative to the stationary fork 18, by means of two braces 24 which are pivoted at one of their extremities upon the protruding extremities of the cross piece 17 at the upper extremities of the tubes 13. The braces 24 extend diagonally to the section 21 and have in their lower edges, notches 26 which engage the cross bar 25 and the said braces are retained in their adjusted position by means of coiled springs 27 which are placed around the outermost teeth 22 and whose inwardly ranging extremities bear upon the upper edges of the members 24. The teeth 22 are each composed of two telescoping members, the inner ones 22^a of which may be extended to keep hay from falling upon the operating parts of the apparatus.

The lever system D by means of which the device is operated, comprises two furcular members 28 and 29, adapted to pass one within the other and pivotally mounted at their lower extremities upon the base A. The opposite, free ends of the two members, both of which project in between the standards 9, are connected by means of a link 30 and the upper end of the latter is movably connected with the cross piece 10 at the upper extremities of the said standards, by means of two converging rods 31.

The power required to operate the apparatus is applied at the juncture of the link 30 with the inner member 28 by means of a block and tackle appliance 32 which comprises two swiveled pulleys 33 and 34 respectively secured at the juncture above referred to and upon the front end of the bed frame A, and a rope 35, the free extremity of which

may connect with a winding drum the whiffletree of a horse team or with any other means whereby the power required to lift the ricker head, is produced.

To prevent the frame B from passing beyond the vertical plane, I have provided hold-back chains 36, the upper ends of which are secured at the upper extremities of the standards 9 while their opposite ends connect with coiled springs 37, the lower extremities of which are secured at the rearmost end of the base A.

In the operation of my invention, the pivoted fork frame is lowered until the fork 18 is in proximity to the ground. The hay is now sweptfrom the swaths or the windrows upon the teeth 19 and the head raised by the draft upon the rope 35 whose movement is transmitted by means of the rope and tackle appliance 32 to the lever system D, and from there by means of the rods 31, to the pivoted fork frame. When the ricker head has reached its highest position as shown in Fig. 1 of the drawings, the hay is discharged upon the stack, after which the head is again lowered by slackening the rope 35 and manipulating the hold back chains 36.

Having thus described my invention what. I claim is:—

1. In a hay stacker, the combination with a base, of a fork frame pivotally supported thereon and comprising two telescoping sections, cushions upon the lower sections, pins adjustably secured upon the upper section in engagement with the said cushions, to retain the said upper section in its adjusted position relative to the other, and means for moving the lower section about its pivotal axis.

2. In a hay stacker, the combination with a base, of a fork frame pivotally supported thereon, means to turn the said frame about its pivotal axis, a fork fixed upon the said frame, and a series of longitudinally extendible teeth projecting in angular relation to the said fork.

3. In a hay stacker, the combination with a base, of a fork frame pivotally supported thereon, means to turn the said frame about its pivotal axis, a fork fixed upon the said frame, and a series of teeth projecting in angular relation to the said fork and each comprising two telescopically arranged members.

In testimony whereof I have affixed my signature in presence of two witnesses.

DAVID R. LONG.

Witnesses:
W. R. HARULZ,
WILL KAMMERER.