

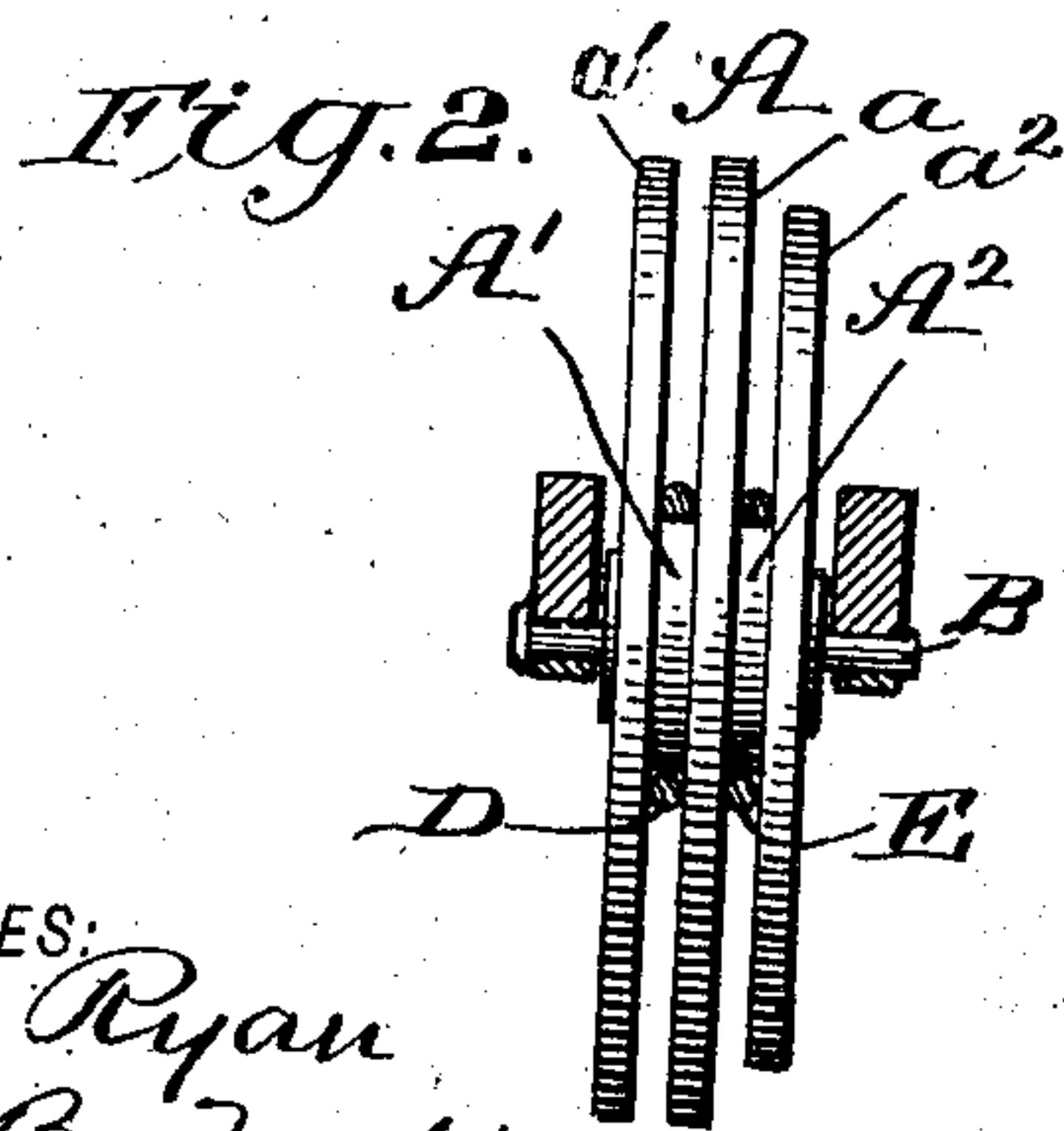
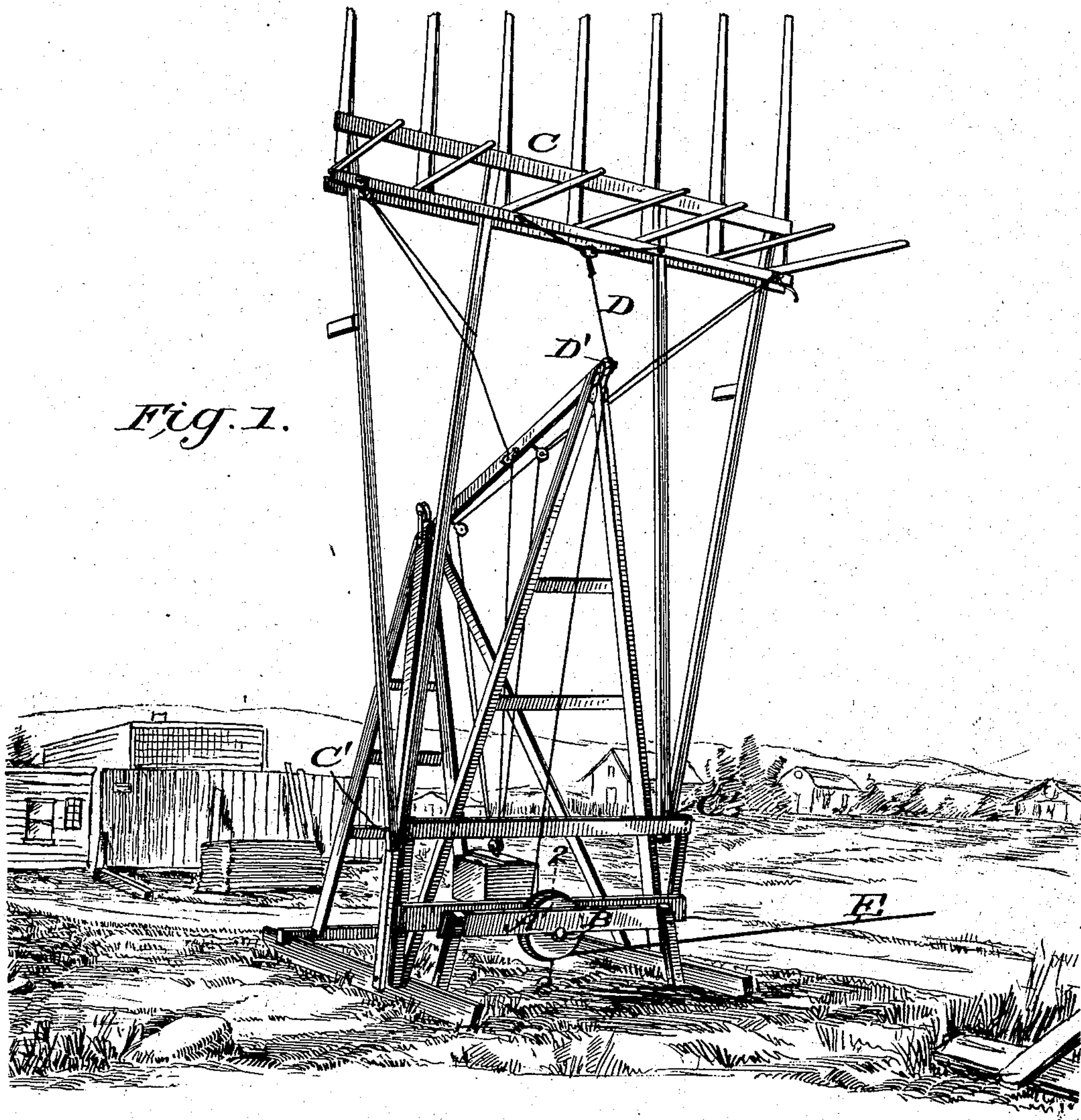
No. 721,616.

PATENTED FEB. 24, 1903.

P. E. SNEER.
HAY STACKER DRUM.

APPLICATION FILED NOV. 14, 1902.

NO MODEL.



WITNESSES:
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PHILETUS E. SNEER, OF ELLENSBURG, WASHINGTON.

HAY-STACKER DRUM.

SPECIFICATION forming part of Letters Patent No. 721,616, dated February 24, 1903.

Application filed November 14, 1902. Serial No. 131,404. (No model.)

To all whom it may concern:

Be it known that I, PHILETUS E. SNEER, a citizen of the United States, and a resident of Ellensburg, in the county of Kittitas and State of Washington, have made certain new and useful Improvements in Hay-Stacker Drums, of which the following is a specification.

My invention is an improvement in drums, and especially in drums designed for use on hay-stackers, and has for an object, among others, to provide a novel construction whereby to increase the motion of the fork without increasing the speed of the horse or other power, also to furnish the greatest amount of power when most needed and the greatest speed when most needed; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a hay-stacker provided with my invention, and Fig. 2 is a vertical cross-section through the drum on about line 2 2 of Fig. 1.

The stacker may in general respects be of ordinary construction, having a suitable framing provided at B with bearings for the drum A and having the fork C, pivoted at C' to the framing and connected by a rope D with the drum. When the fork is on the ground in position to receive the hay, the greatest amount of power is required to start said fork in the operation of raising it, and as the fork rises and gradually approaches a perpendicular position the necessity for great power decreases and speed becomes desirable in order to keep the hay in position on the fork until the fork reaches the point where it discharges the hay on the stack. It is therefore desirable to provide for the maximum power for starting the fork on its upward movement and for the maximum speed as the fork approaches its uppermost or perpendicular position. It is also desirable to accomplish this without varying the speed of the horse or other power, and I accomplish the desired results in a simple manner by means of the drum A, formed with two sections A' and A², which may be of equal diameter, arranged side by side and concentric, are separated by the intermediate flange *a*, and are provided at their ends with the flanges *a'* and *a''*, spaced apart from the intermediate flange a distance

equal to the diameter of the rope, so that the ropes wound on one drum and off the other will operate to automatically increase and decrease the diameter of this drum-section to the extent of twice the diameter of the rope for each round thereof on the drum-section. Further, by winding one rope on one drum as the other rope is wound off the other the variation between the two drums is accordingly increased. The rope D connects at one end with the fork, passes thence over a guide-pulley D', and is secured to and wound on the section A' of the drum A, while the other rope E is secured to and wound on the section A² of the drum and extends thence and is connected with the horse or other power. When the fork is down, the rope D is unwound from its drum-section A' and the rope E is wound on its drum-section A², so the drum-section A², having the rope E, is of its greatest diameter, and the drum-section A', receiving the rope D, is of its least diameter when the fork is down. It will thus be noticed that the diameter of the drums is increased and decreased by the winding up and unwinding of the ropes and that when the fork is down the drum-section receiving the rope E is of its greatest diameter, and consequently the power has its greatest leverage in starting the fork on its upward movement. As the fork approaches its upright position the rope D, having been wound on its drum-section A', will have increased the diameter of such drum-section and the speed of the drum will increase as such fork approaches its upright position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the framing the stacking-fork pivoted thereto, the drum having adjacent drum-sections and flanges on said drum-sections and spaced apart a distance corresponding to the diameter of the ropes, the rope connected with one drum-section and extending thence and connected with the fork, and the power-rope connected with the other drum-section substantially as set forth.

2. The combination with the stacker-frame and stacking-fork of a drum having sections provided with flanges spaced apart a distance

corresponding to the diameter of the ropes, the power-rope secured to one of said drums and winding in single superposed coils between the flanges thereof, and the lifting-
5 rope secured at one end to the fork and at its other end to the other drum-section and winding in single superposed coils between the flanges thereof substantially as set forth.

3. A stacker comprising a frame and a
10 pivoted fork combined with the fork-lifting rope and the power-rope and a drum having sections to which said ropes are secured, the diameters of the drum-sections being increased and decreased by the unwinding and winding of the ropes thereon in single super- 15 posed coils substantially as set forth.

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Witnesses:

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