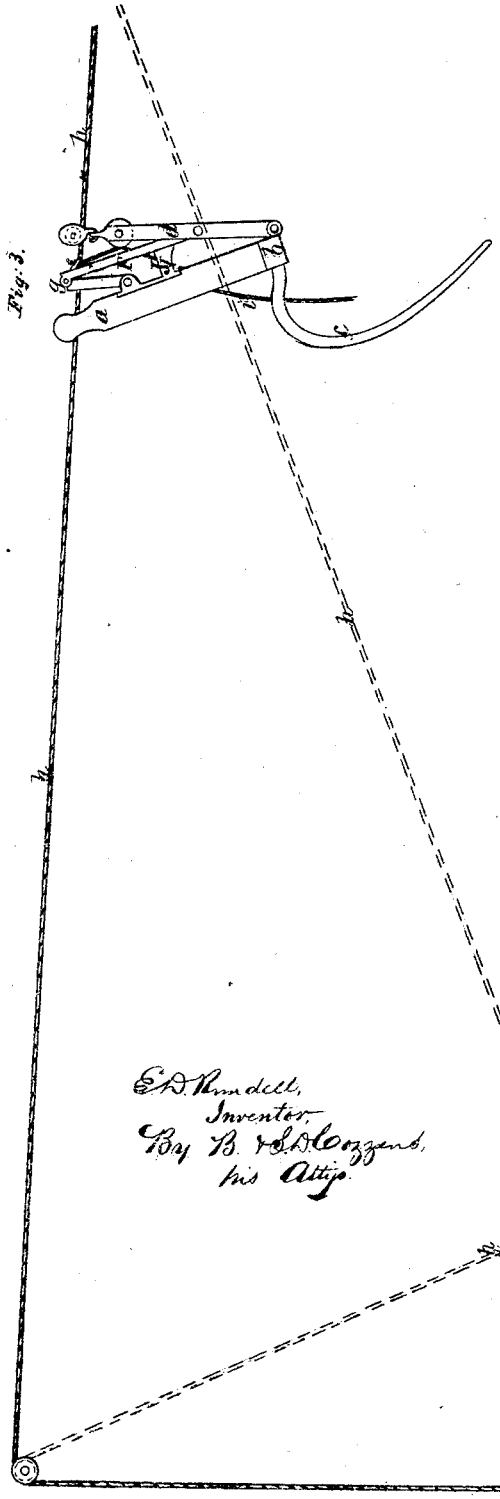
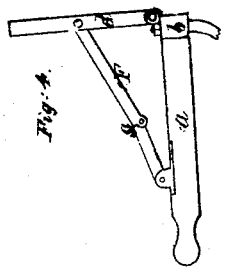
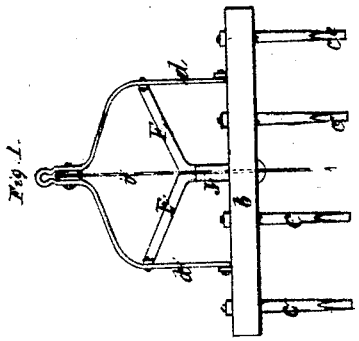
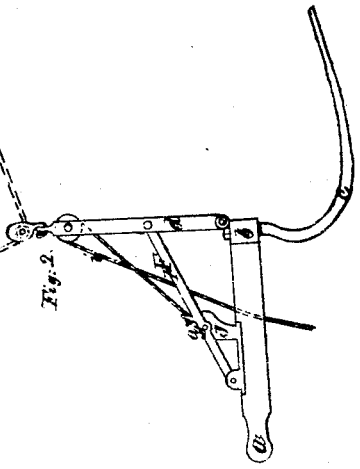
E. D. Rundell,
Hay Fork.

No. 45439. Patented. Dec. 13. 1864.









UNITED STATES PATENT OFFICE.

EDGAR D. RUNDELL, OF HUDSON, NEW YORK.

IMPROVEMENT IN HORSE HAY-FORKS.

Specification forming part of Letters Patent No. **45,439**, dated December 13, 1864.

To all whom it may concern:

Be it known that I, EDGAR D. RUNDELL, of Hudson, in the county of Columbia and State of New York, have invented a new and useful Improvement in Hay-Elevators; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the drawings which accompany and form part of this specification.

Of these drawings, Figure 1 is a plan. Fig. 2 shows the fork loaded and ready to be operated. Fig. 3 shows it after its load has been discharged, and Fig. 4 represents a portion of a fork.

This invention is especially designed to be applied to that class of hay-elevators or hay-forks which contain a jointed brace so constructed and operated as to hold the fork in proper position while it is being elevated with its load, and to permit, when the joint is opened, the load to be discharged. An instance of such a fork can be seen in the Letters Patent granted to Nelson Palmer on the 30th of September, 1862. This kind of fork is defective, in this, that when the brace is holding the fork in place the joint is liable, particularly after the apparatus has been a short time in use, to drop a little below the line of the other parts of the brace, as shown in Fig. 4, and when in this position it is, by reason of its being out of the plane at which the discharging device should properly commence its action upon it, rendered much more difficult to be acted on to open it to discharge the load, more power being required for the purpose, while not infrequently the joint sticks, or, as it were, "sets," and cannot be worked as readily and quickly as is desirable.

The object of my invention is to remedy this difficulty; and it consists in combining with the jointed brace a rest, of metal or other suitable material, secured to the handle or to some other convenient part of the fork, and so arranged that when the brace is in the proper position for retaining the fork in place to hold and elevate the hay the joint shall touch and bear against the rest, so as to be prevented from dropping below the line of the other parts of the brace. By this means the opening of the joint is effected with the least possible expenditure of power, and the load is at all times discharged with ease and rapidity.

To enable those skilled in the art to make and use my invention, I will describe one mode in which I have successfully put it in practice.

In the drawings, *a* represents the handle of the fork; *b*, the head-piece, which carries the tines *c;* and *d* is the bail, properly secured to the head.

F is the holding-brace, made in two parts, which are jointed together by a rule-joint, *g*, and operating as a toggle-lever; and *h* is the sustaining and elevating rope, and *i* is the discharging-rope. All these parts are well known, and do not need further description.

J is the rest, which I combine with the brace; and it consists of a step or projection, made of any suitable shape and material, and attached to the handle *a* or to any other convenient part of the fork, so as to reach up to and support the joint of the brace when the toggle is in the position at which it is exerting its greatest effect. I prefer that this rest should be slightly recessed on its upper surface, so as to receive the protuberance of the joint, as shown.

When the fork is being thrust into the hay to be charged, and when it is being elevated, the brace bears upon the rest in the position in which it exercises its maximum power, and in which also its joint is capable of being opened with the greatest facility to discharge the load, which is when the two arms of the brace are in the same straight line, and consequently it can at no time fall below this line into a position which would require extra effort or time to open it.

This device can be very cheaply and easily applied, and will be found to be of much convenience in use.

I do not limit myself to the precise construction shown in the drawings, as my invention may be carried out in many different ways; but, having thus described one mode in which it may be put in practice, I wish it to be understood that I do not claim a brace operating as a toggle-joint to hold the fork in place until the load is to be discharged; but

What I claim, and desire to secure by Letters Patent, is—

Employing in hay-elevators a rest or its equivalent, in combination with the load-discharging rope, lever, or other device, substantially as and for the purposes set forth.

E. D. RUNDELL.

Witnesses:
S. D. COZZENS,
ANDREW J. TODD.