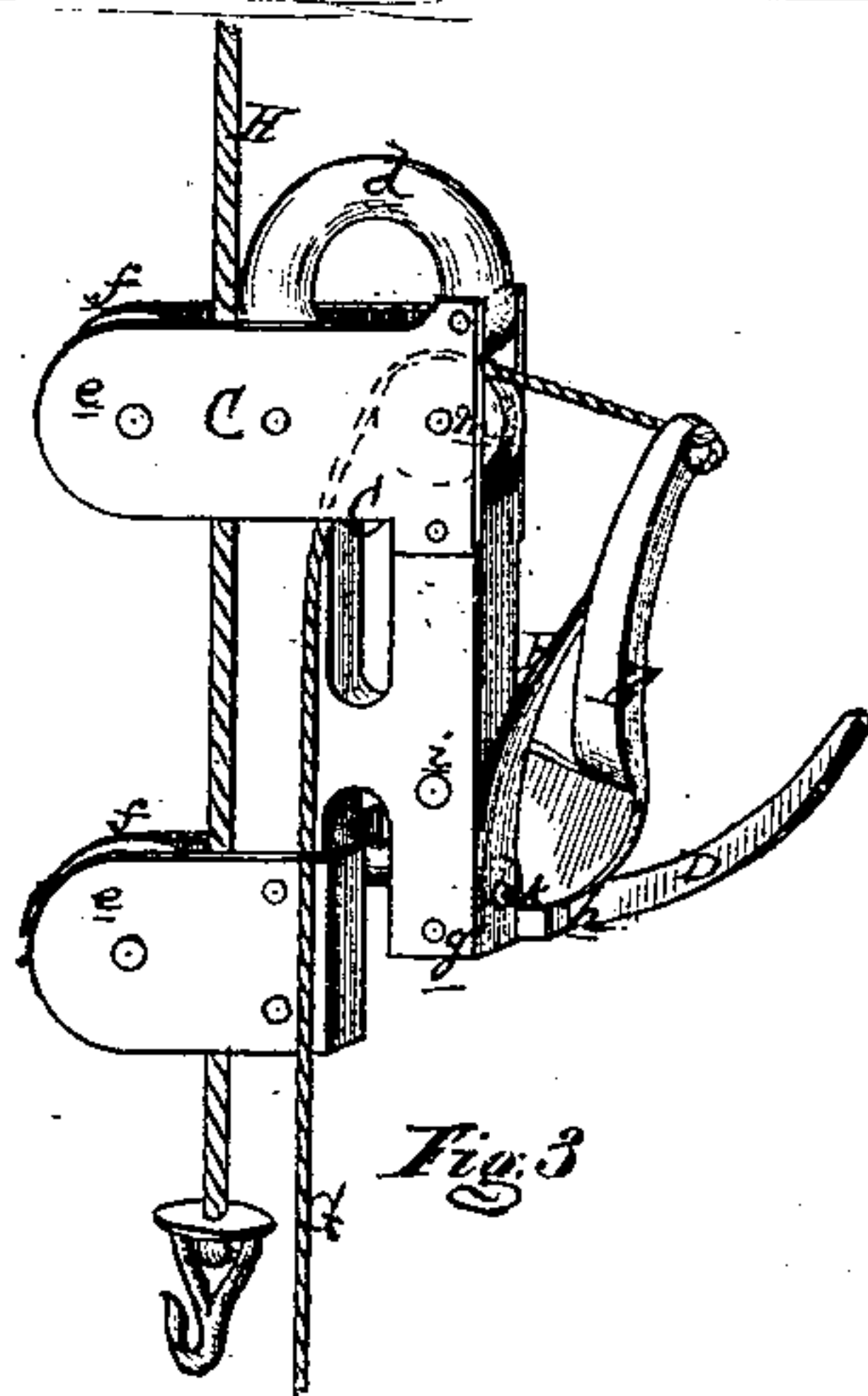
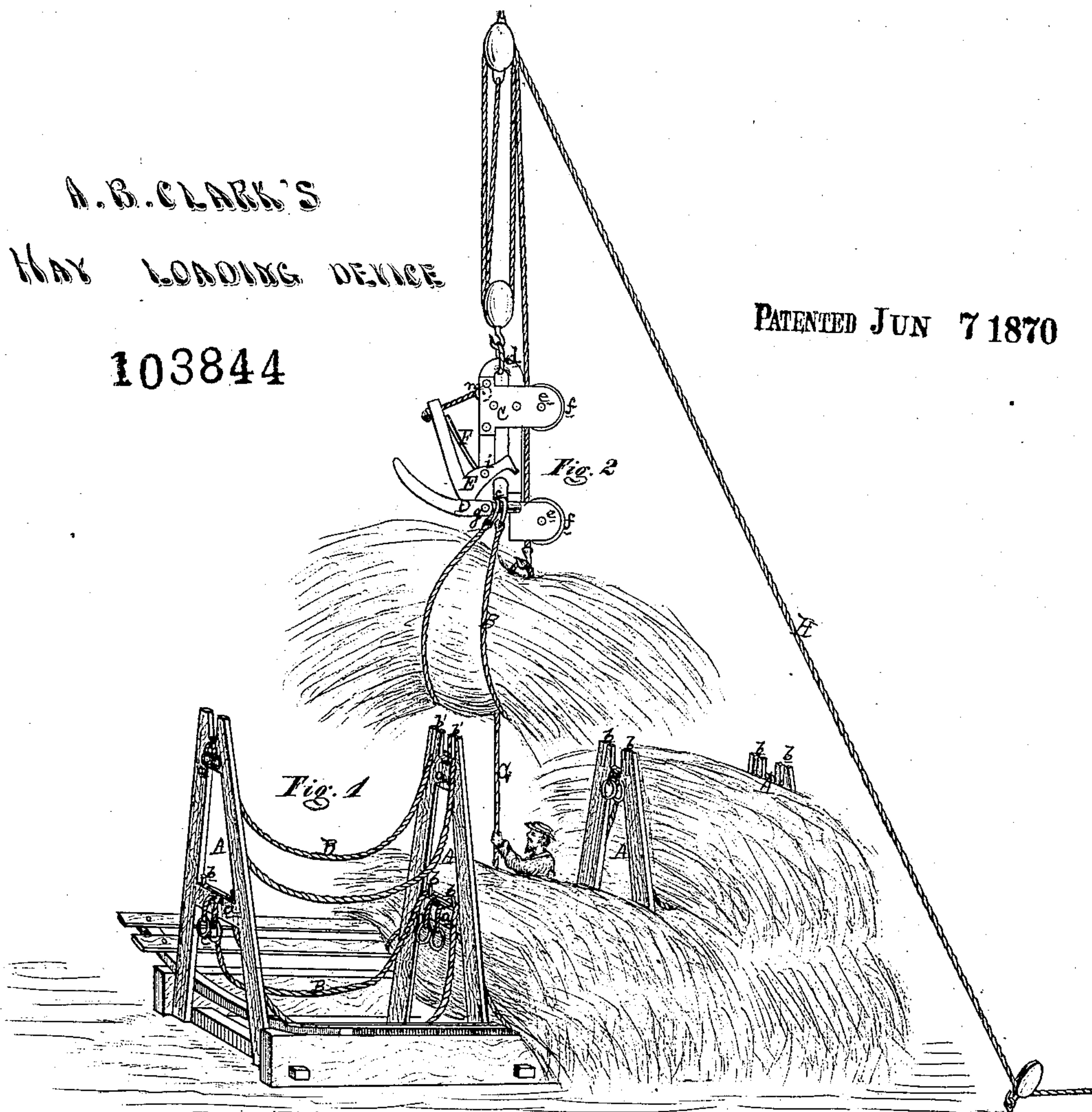


A.B. CLARK'S
HAY LOADING DEVICE

103844

PATENTED JUN 7 1870



ATTEST

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AARON BINGHAM CLARK, OF GRASS LAKE, MICHIGAN.

Letters Patent No. 103,844, dated June 7, 1870.

IMPROVED HAY-LOADING DEVICE.

The Schedule referred to in these Letters Patent and making part of the same

To whom it may concern:

Be it known that I, AARON BINGHAM CLARK, of Grass Lake, in the county of Jackson and State of Michigan, have invented a new and useful Improvement in Hay-loading Device; and I do hereby declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 shows my device in perspective and in operation, unloading hay from a wagon.

Figure 2 shows my tripping-device enlarged.

Figure 3, a plan of the back side of the same.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved method of removing hay from wagons or carts to the barn or stack; and

It consists—

First, in dividing the hay-rack of the wagon into sections, by means of upright standards, which are provided with cross-ties, into which are driven, or otherwise secured, spurs or hooks, upon which rest ropes or cords, so arranged that, when the section is filled with hay, the ends of said ropes may be detached from the spurs and secured to a hoisting and tripping-device, by means of which the hay may be lifted from the wagon and deposited where desired, the hay being bound or baled by said rope, and firmly held in its passage.

Second, in a new, novel, and ingenious hoisting apparatus, to be employed for lifting and depositing said hay.

In the accompanying drawing is shown a hay-rack, which may be of any desired form or construction, provided with upright standards A, by means of which the rack is longitudinally divided into sections of convenient size.

Into the cross-ties *a* of these standards are driven or otherwise secured the spurs *b*.

The tops of the standards are provided with similar spurs or hooks *b'*.

B is a rope, each end of which is provided with a ring, *c*. This rope should be about three times in length of the distance between the standards, and is folded, the center bight of which is hung over the spurs *b*, while the ends with the rings attached hang over the cross-tie of the next standard, allowing the slack of the rope to rest upon the bottom of the rack.

When the section of the rack between any two of the standards A has been partially filled with hay, a similar rope, whose bight is hung over the spurs *b'*, is provided and placed in a similar manner, when the section may be filled with hay to the top of the standards.

Each of the sections between the standards may and should be similarly arranged.

C is a metallic frame, provided with a loop, *d*, by means of which it is suspended at any desired point.

To this frame are secured proper ears or lugs, *e*, to which are secured or journaled the pulleys *f*.

D is a dog, pivoted to the frame at *g*, and is provided with a notch, *h* upon its rear side.

E is a bell-crank, also pivoted to the frame at *i*, and is provided with a latch, *k*, which is designed to engage with the notch *h* upon the dog.

F is a spring, one end of which is secured at *l* to the frame, while the other end rests against the long arm of the bell-crank, and compels the engagement of the latch with the notch, except when the same is tripped, which is done by means of the tripping-line G, one end of which is fastened to the end of the long arm of the bell-crank, and thence, passing over the pulley *m*, falls within reach of the operator.

We will suppose that a wagon has been loaded, as before described, and it is desired to transfer the same to the hay-mow or stack, and that the hoisting-apparatus is suspended in place. The operator, on the load, takes the rings *c* at the ends of the rope B, and slips them onto the dog D, and then takes the bight of the rope from the spurs *b'*, and engages it with the hook *n*, which is secured to the end of the hoisting-rope H, which passes over the pulleys *f*.

The team, being attached to the other end of the rope H, which may run through intermediate pulleys if required, walks away, lifting the hay, in the form of a bale, suspended in the slack of the rope B, as in a cradle.

When elevated to the proper position, the operator, by pulling the tripping-line G, disengages the latch *k* from the dog D, when the rings *c* slip off, allowing the hay to fall where desired.

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

1. In combination with a hay-rack, the standards A, dividing said rack into equal sections, as described, and provided with cross-ties *a* and spurs *b*, when arranged for the purpose herein specified.

2. In combination with said rack, so provided with cross-ties and spurs, the rope B, provided with rings *c*, and operating substantially as and for the purposes herein set forth.

3. In combination with said rack A and rope B, constructed as described, the hoisting and tripping-apparatus, wherein the frame C, dog D, bell-crank E, spring F, tripping-line G, and hoisting-rope H are arranged relatively to each other, and operating substantially as herein set forth and shown:

AARON BINGHAM CLARK.

Witnesses:

THOS. S. SPRAGUE,

SAML. J. SPRAY,

FREDERICK EBERTS.