2 Sheets—Sheet 1.

C. LOADER.

HAY-LOADER.

No. 181,694. Patented Aug. 29, 1876.

Fig. 1.

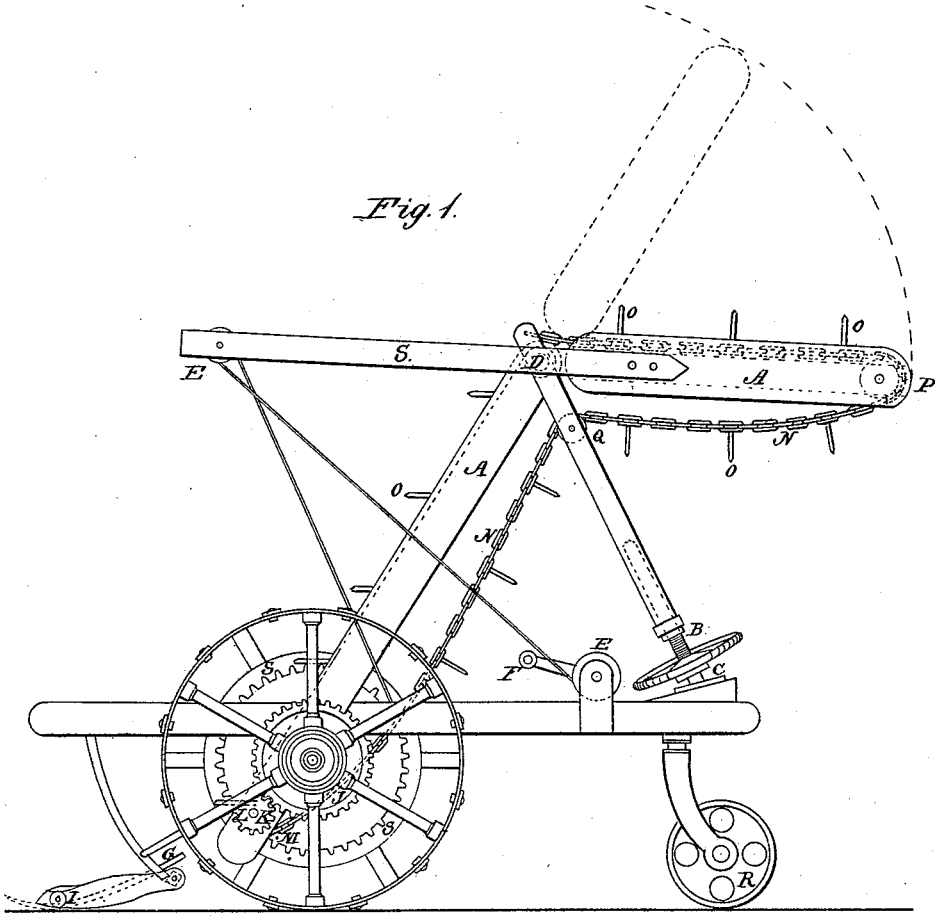


Fig. 4.

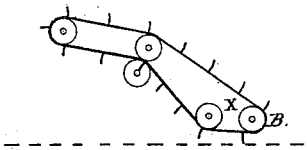
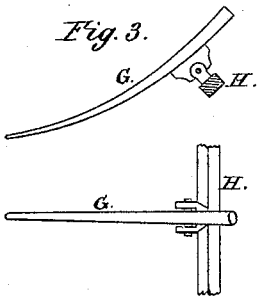


Fig. 3.



WITNESSES:

W. W. Hollingsworth

Solon C. Kemon

INVENTOR:

Caleb Loader

BY Munn & Co

ATTORNEYS.

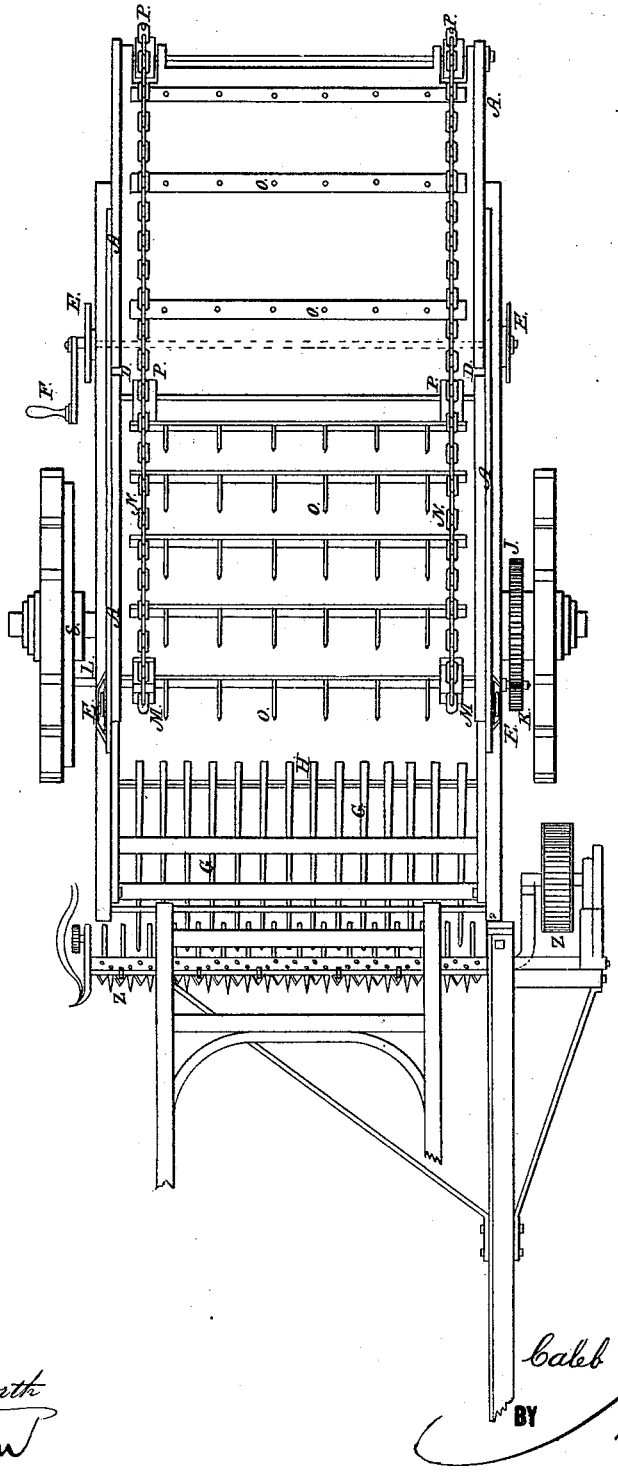
2 Sheets—Sheet 2.

C. LOADER.

HAY-LOADER.

No. 181,694. Patented Aug. 29, 1876.

Fig. 2.



WITNESSES:

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INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

CALEB LOADER, OF EAST PENNARD, ENGLAND.

IMPROVEMENT IN HAY-LOADERS.

Specification forming part of Letters Patent No. **181,694**, dated August 29, 1876; application filed June 27, 1876.

To all whom it may concern:

Be it known that I, CALEB LOADER, of East Pennard, in the county of Somerset, England, have invented a new and Improved Hay Raking and Loading Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to certain improvements in that class of hay raking and loading devices in which the frame which carries the endless elevator is made jointed, and with an upper movable section; and it consists in the means for operating the said jointed section, as hereinafter more fully described.

Figure 1 of the drawing is a longitudinal elevation, and Fig. 2 a plan or horizontal view, of the machine constructed so as to adapt it for making hay in the open field, and for cutting grain, and for loading carts or wagons, in the manner above referred to.

A A is the body of the machine, supported at the bottom on the axis of the running wheels, on which axis it is capable of being raised and lowered, as required, by means of a screw, B, worked by a hand-wheel, C. This body of the machine A is also jointed at D, so as to admit of its upper section being adjusted as required through arms S, by means of cords and pulleys E E, carried as shown, and worked by a handle, F, conveniently fitted at one side of the machine. G G are a series of gathering-prongs, mounted separately in brackets on a transverse rod or bar, H, which is capable of adjustment to any required elevation, each prong being mounted in its bracket on a pivot, so as to render it capable of rising at its lower end, and thereby accommodating itself to any unevenness or obstruction on the ground. One of the prongs is shown detached on an enlarged scale at Fig. 3. The set of prongs are supported at the lower end by a pair of small rollers, I I, mounted on a transverse shaft. On the shaft of the running-wheels is fixed a toothed wheel, J, at one side of the machine, which gears with a pinion, K, fixed on transverse shaft L, on which shaft are also fixed two small wheels, M M, with projections or teeth on their periphery fitting into the links of endless chains N N, which carry the loading-rakes O O, and pass around pulleys P P at the upper end of the body of the machine A, and over guide-pulleys Q Q, such chains being caused to travel upward and carry with them the loading-rakes along the front side of the said body, and returning at the back thereof.

The tines of the loading-rakes O O are alternately seven and eight in number, or any other odd and even number, alternately, that may be required for elevating different materials, such as straw, hay, or green grass. R is a trailing-wheel, at the back of the machine or there may be a pair of wheels for the same purpose.

By means of the above-described arrangement, it will be seen that, as the machine is drawn forward, the gathering-prongs G G will lift the hay or other agricultural produce onto them, which will be taken up from the back part of the prongs by the loading-rakes O O, and carried upward along the body of the machine A until it reaches the end of the same, whence it falls onto the ground for hay-making, or onto the front part of the cart or wagon at the back of the machine, for loading.

If desired, the gathering-prongs may be dispensed with by the addition of another guide-pulley, as at X on Fig. 4, which represents the loading-rakes detached. By means of this additional guide-pulley, the tines are mode to travel nearly parallel with the surface of the ground for any distance, so as to insure the gathering up of the whole of the material to be elevated.

In Fig. 1 the upper part of the body of the machine A is represented at the required elevation for making hay, or at the beginning of the loading, and the dotted lines show the position of the said upper part when the cart or wagon has been loaded to its full height, the said upper part having been raised by means of the cords and pulleys E E.

When the machine is required to load at the back of the cart or wagon, the pinion K is fixed onto the opposite end of the shaft L, and made to gear with an internally-toothed wheel, S, on the opposite end of the shaft of the running-wheels, by which means the traveling chains N N are driven in the opposite direction to that above described. The gathering-

prongs G G are also reversed and placed under the body of the machine, and the agricultural produce, as it is lifted off the ground by the prongs, is taken out therefrom and carried upward by the hinder loading-rakes O O, as they are caused to ascend by the action of the traveling chains.

When the machine is required for cutting and loading at the same time, a reaping apparatus, in combination with the usual cutting details, is attached to the foot of the machine Z. The produce being cut, and falling over onto the tines, is carried up therefrom into the wagon.

The machine, as above described, will be readily understood as being well adapted for hay-making, by first raising the hay lightly off the ground, and allowing it afterward to fall lightly from the machine through the air onto the land again, and for harvesting other dry produce as it is cut and loaded while traveling in the field.

Having thus described my invention, what I claim as new is—

The upper jointed section of the frame A, provided with arms S, and combined with the elevator N O, the pulleys Q, and the cord-and-pulley mechanism E F, substantially as and for the purpose described.

The above specification of my invention signed by me this 20th day of May, 1876.

CALEB LOADER.

Witnesses:

WILLIAM THOMPSON,

WILLIAM DODDS.