

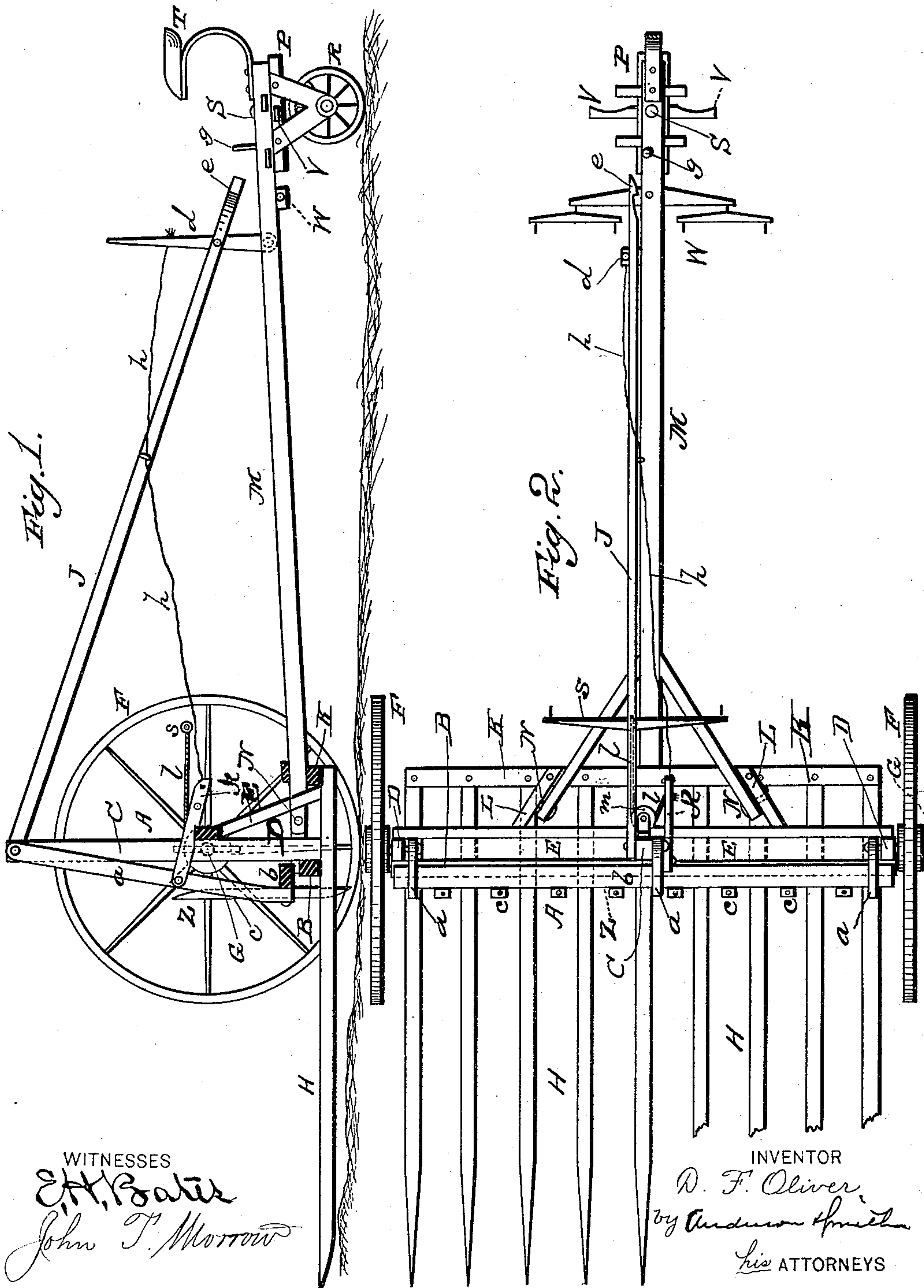
(No Model.)

D. F. OLIVER.

HAY RAKE.

No. 330,727.

Patented Nov. 17, 1885.



UNITED STATES PATENT OFFICE.

DOCTOR FRANKLIN OLIVER, OF HUNTSVILLE, MISSOURI.

HAY-RAKE.

SPECIFICATION forming part of Letters Patent No. 330,727, dated November 17, 1885.

Application filed December 31, 1883. Serial No. 116,078. (No model.)

To all whom it may concern:

Be it known that I, DOCTOR F. OLIVER, a citizen of the United States, residing at Huntsville, in the county of Randolph and State of Missouri, have invented certain new and useful Improvements in Horse Hay-Rakes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view of my device, and Fig. 2 is a plan view of the same.

This invention has relation to hay-rakes designed to be moved by horse-power; and it consists in the construction and novel arrangement of devices, all as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A represents the rake-frame, and consists of transverse bars B, secured to a central upright, C, and lateral uprights D, and made firm by means of oblique braces E.

F F indicate the wheels, which are of large diameter, and are placed upon adjustable spindles G, at the sides of the frame, which are securely bolted to the upright posts D. These spindles may be placed in higher or lower position, according to the diameter of the wheels employed.

H H indicate the main rake-teeth, which are secured to the lower transverse bar B and to the rear transverse bar, K. The rake-teeth extend forward horizontally at a low level, and are braced in position by means of short horizontal oblique braces L.

M indicates the pole or pushing-bar of the machine, which is connected by oblique horizontal braces to the rear of the rake-head, pivoted at N N in such a manner that when the rake-teeth are depressed in front the depression will be limited by the front portion of the pole, against which the rear transverse bar, K, of the rake-head bears. The rear end of the push-pole M rests on a caster-frame, P,

which carries a caster-wheel, R, and is pivoted at S to the pole. The seat T is secured to the rear of the pole, and by means of a transverse foot-bar, V, secured to the caster-frame, the latter is turned in guiding the machine as it moves forward.

W represents the double-tree, which is connected to the pole in front of the driver.

Z represents the swinging discharge-frame, the arms *a* of which are pivoted to the uprights D of the rake-head. The arms *a* are connected by a transverse bar or head, *b*, which carries the teeth or pins *c*, which extend up and down between the main rake-teeth, and are designed to assist in discharging the load from said rake-teeth.

J indicates a connecting-bar, which is at its front end pivoted to the central arm, C, of the rake-head, and at its rear end to a lever, *d*, which is pivoted to the pole M. By means of this lever-connection the rake-head is operated to raise or depress the teeth in front. The rear end of the connecting-bar J is provided with a catch, *e*, adapted to engage a pin or lug, *g*, on the pole, and when so engaged the rake-head is held in the raised position. Connected to the lever *d* is a cord, *h*, which extends forward in guides on the bar J to a catch-bar, *k*, which is connected to the swinging discharge-frame Z at its middle portion. This catch-bar extends to the rear, and is provided with a cord, *l*, which passes around a pulley, *m*, and is attached at its end to a yoke, *s*, to which are connected the collar-straps of the harness of the team, which is located behind the rake-head.

In order to discharge a load taken upon the rake-teeth, the cord *h* is pulled to release the catch-bar *k*, and the team is then backed. This operation causes the swinging discharging-frame Z to move forward, and its teeth *c* push the hay forward, and as the backing movement continues the rake-teeth are drawn from the hay, which is left in the place desired.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The rake-head, consisting of the horizontal teeth, the transverse bars B and K, the ob-

lique braces L, and lateral uprights D D, to which the swinging discharging - frame Z is pivoted, substantially as specified.

2. The combination, with a rake-head carried upon wheels, and a pivoted push-pole in rear thereof, of the swinging discharging-frame Z, its catch-bar *k*, the lever *d*, and connecting-bar J, extending to the rake-head, the detach-

ing-cord *h*, and the cord *l*, extending to the breast-yoke, substantially as specified. 10

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

DOCTOR FRANKLIN OLIVER.

Witnesses:

W. R. SAMUEL,

W. F. HAMMETT.