

(No Model.)

J. GOPPERT.
HAY RAKE.

No. 597,496.

Patented Jan. 18, 1898.

FIG. 1.

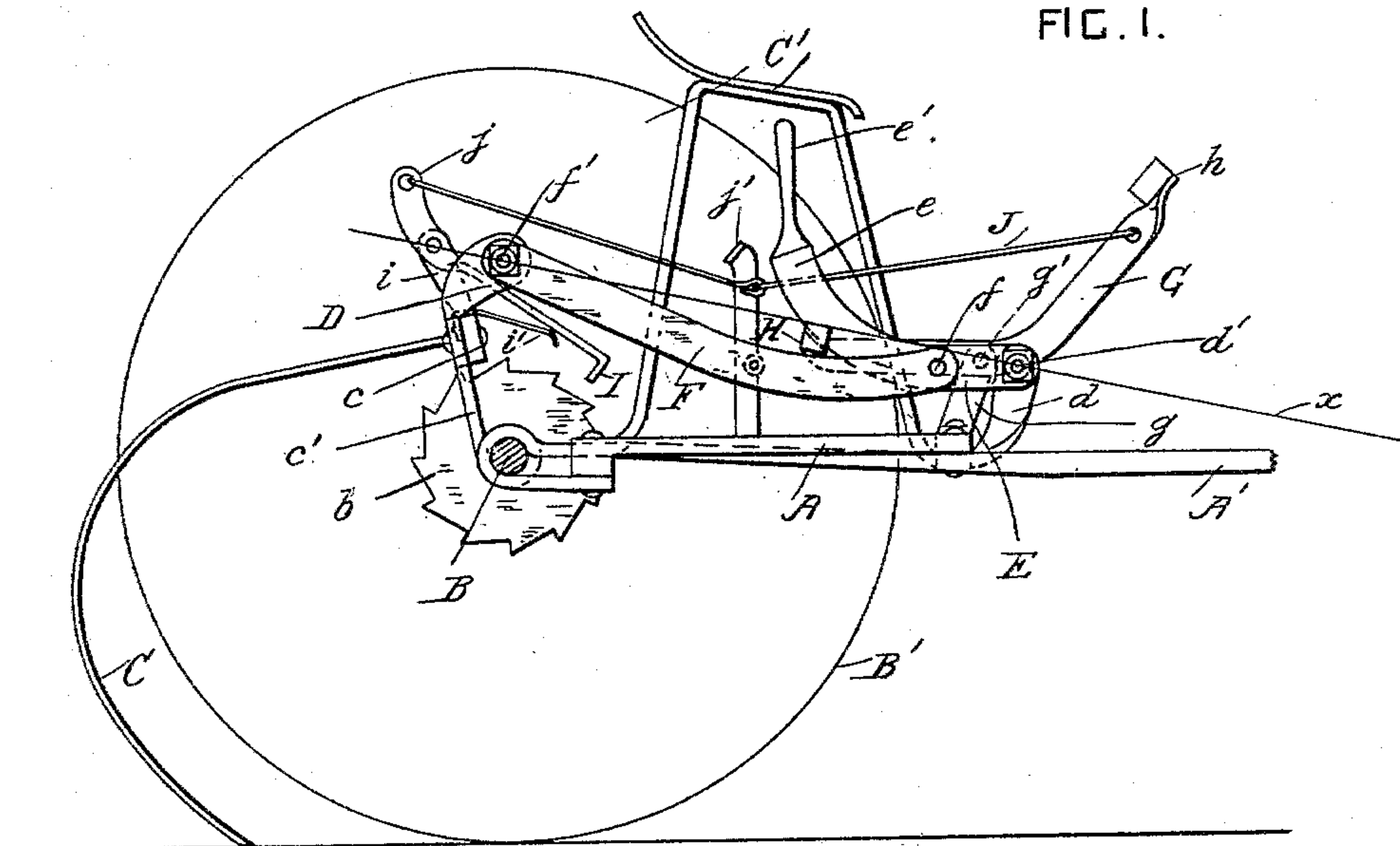
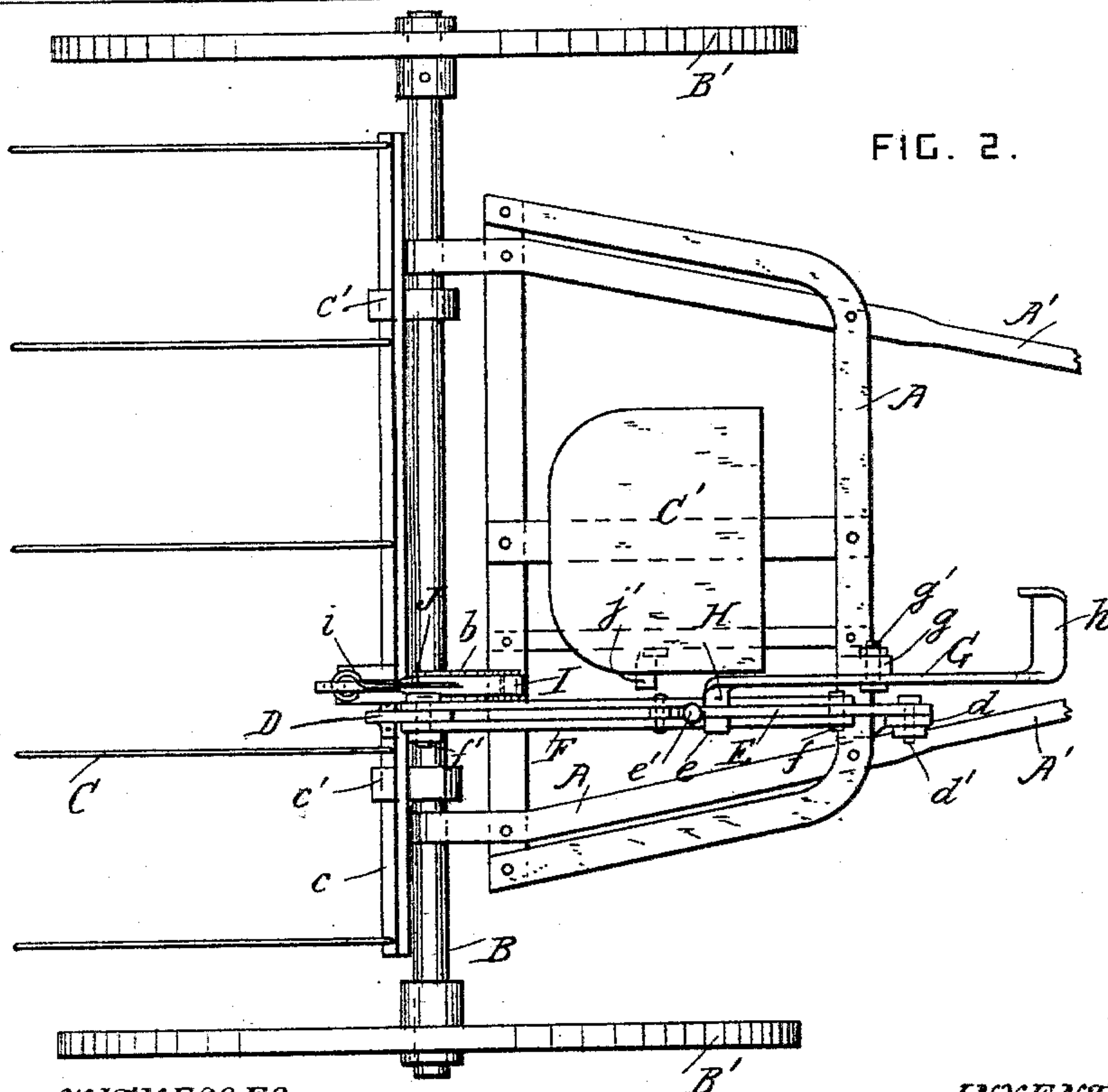


FIG. 2.



WITNESSES

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HAY-RAKE.

SPECIFICATION forming part of Letters Patent No. 597,496, dated January 18, 1898.

Application filed April 10, 1897. Serial No. 631,595. (No model.)

To all whom it may concern:

Be it known that I, JULIUS GOPPERT, a citizen of the United States, residing at Grovertown, in the county of Starke and State of Indiana, have invented certain new and useful Improvements in Hay-Rakes; and I do hereby 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.

This invention relates to hay-rakes; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed, whereby the teeth are locked automatically when lowered and the dump is effected by the forward motion of the machine when the teeth are unlocked.

In the drawings, Figure 1 is a side view of portions of a hay-rake constructed according to this invention. Fig. 2 is a plan view of the same.

A is the frame, and A' are portions of the shafts. B is the axle, journaled in the rear part of the frame, and B' are the ground-wheels carried by the axle. One of these ground-wheels is secured on the axle, and b is a ratchet-toothed wheel secured on the middle part of the axle.

C are the teeth of the rake, carried by a tooth-bar c, which is pivoted to the axle by arms c'.

C' is the seat for the driver.

All the above-mentioned parts are of any approved construction.

D is an arm projecting upwardly from the tooth-bar c, and d is a bracket secured to the front portion of the frame A.

E is a short lever pivoted to the bracket d by a pin d'. The rear end portion e of the lever E is curved upward, and it is provided with a handle e'. This handle, however, may be left off, if desired.

F is a double bar having its front portion pivoted to the lever E, near the pin d', by a pin f. The rear end of the double bar F is pivoted to the arm D by a pin f'.

The lever E works in a vertical plane between the two bars which form the double bar F.

G is a trip-lever pivoted to a bracket g, secured to the frame by a pin g'. The trip-lever is provided with a foot-plate h at its front

end, arranged conveniently in proximity to the seat of the driver.

H is a projection at the rear end of the trip-lever, which is arranged between the curved rear end of the lever E and the double bar F. The projection H is arranged horizontally in the angle formed between the upper side of the bar F and the under side of the curved rear end portion of the lever E. When the rake-teeth are lowered, the trip-lever is in the position shown in Fig. 1, and the center of the pin f is held by the projection H a little below a line x drawn through the centers of the pins f' and d'. The tooth-bar is locked in this position and the teeth cannot rise and release the hay automatically in passing over rough ground. When the trip-lever is depressed by the foot, it raises the curved end portion e of the arm E and lifts the center of the pin f above the line x. This unlocks the tooth-bar, so that the dumping of the hay can be effected.

I is a pawl pivoted to an arm i, projecting from the tooth-bar c and normally held out of engagement with the teeth of the ratchet-wheel b by a spring i'.

J is a connection pivoted to the upper part j of the pawl I and to the upper part of the trip-lever. This connection may be a jointed rod or a cord, chain, or other equivalent device. When the trip-lever is depressed by the foot, it moves the pawl into engagement with one of the teeth of the ratchet-wheel, and the forward motion of the rake raises the rake-teeth and dumps the load. When the load of hay is dumped, the upper part j of the pawl strikes against a projection j' on the frame, which raises the pawl out of engagement with the ratchet-wheel and permits the rake-teeth and the trip-lever and locking mechanism to fall back by gravity to their normal positions.

What I claim is—

1. In a rake, the combination, with a frame, and a pivoted tooth-bar provided with teeth; of a short lever pivoted to the front part of the frame and provided with an upwardly-curved rear end portion, a bar pivotally connected with the said tooth-bar and lever, and a pivoted trip-lever provided with a projection arranged horizontally in the angle formed between the said bar and the curved end

portion of the said lever, said trip-lever operating to lock and to release the said tooth-bar, substantially as set forth.

2. In a rake, the combination, with a frame, 5 a revoluble ratchet-toothed wheel, a pivoted tooth-bar provided with teeth, and a pawl carried by the said tooth-bar; of a short lever pivoted to the front part of the frame and provided with an upwardly-curved rear 10 end portion, a bar pivotally connected with the said toothed bar and lever, a pivoted trip-lever provided with a projection arranged horizontally in the angle formed between the

said bar and the curved end portion of the said lever, and a connection between the said 15 trip-lever and pawl, said trip-lever operating to unlock the tooth-bar and place the pawl in engagement with the ratchet-wheel, substantially as set forth.

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

JULIUS GOPPERT.

Witnesses:

HENRY ALLEN,
WILLIAM PIERCE.