

(No Model.)

R. A. LEONARD.

MOWING MACHINE.

No. 274,793.

Patented Mar. 27, 1883.

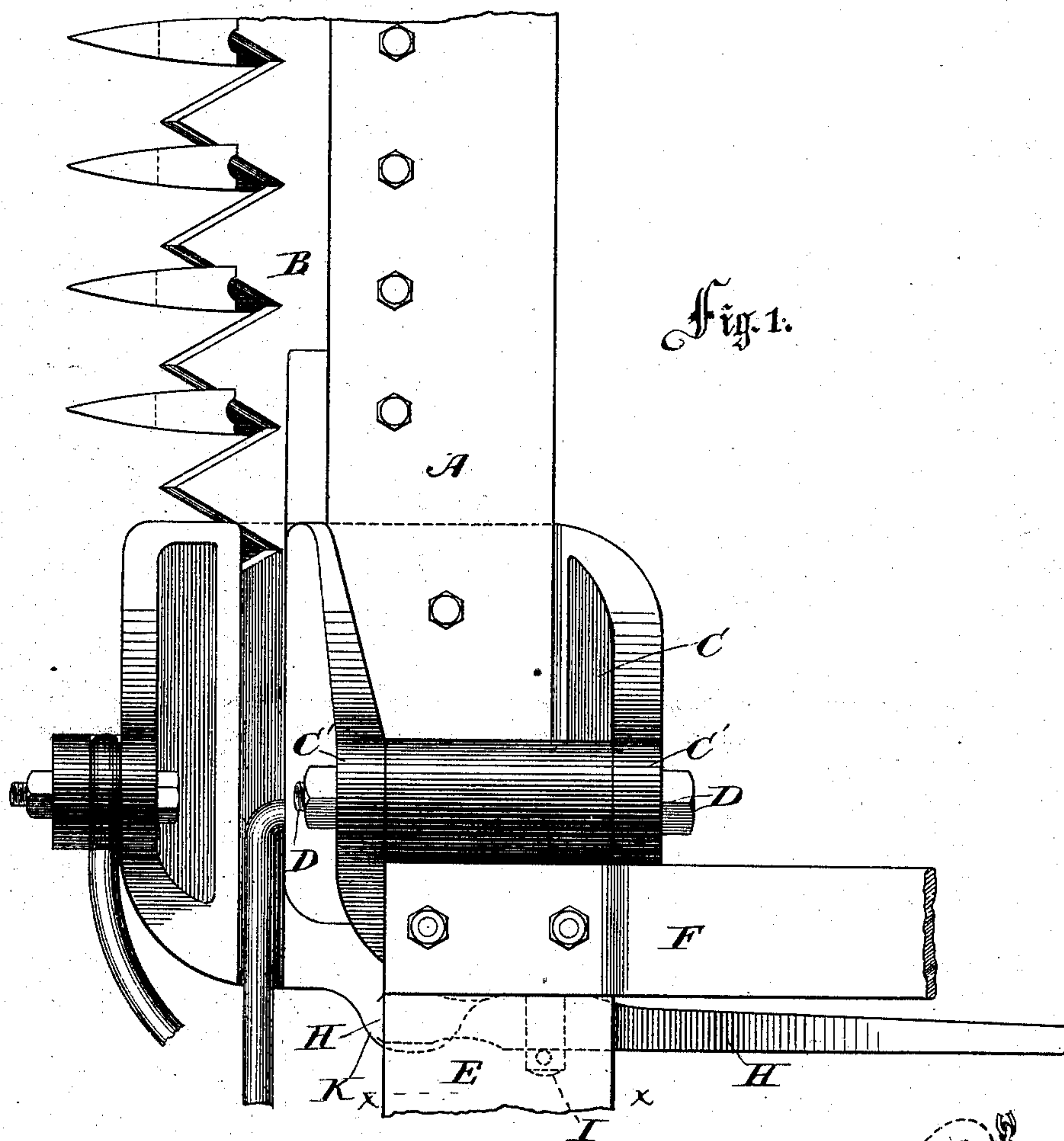


Fig. 1.

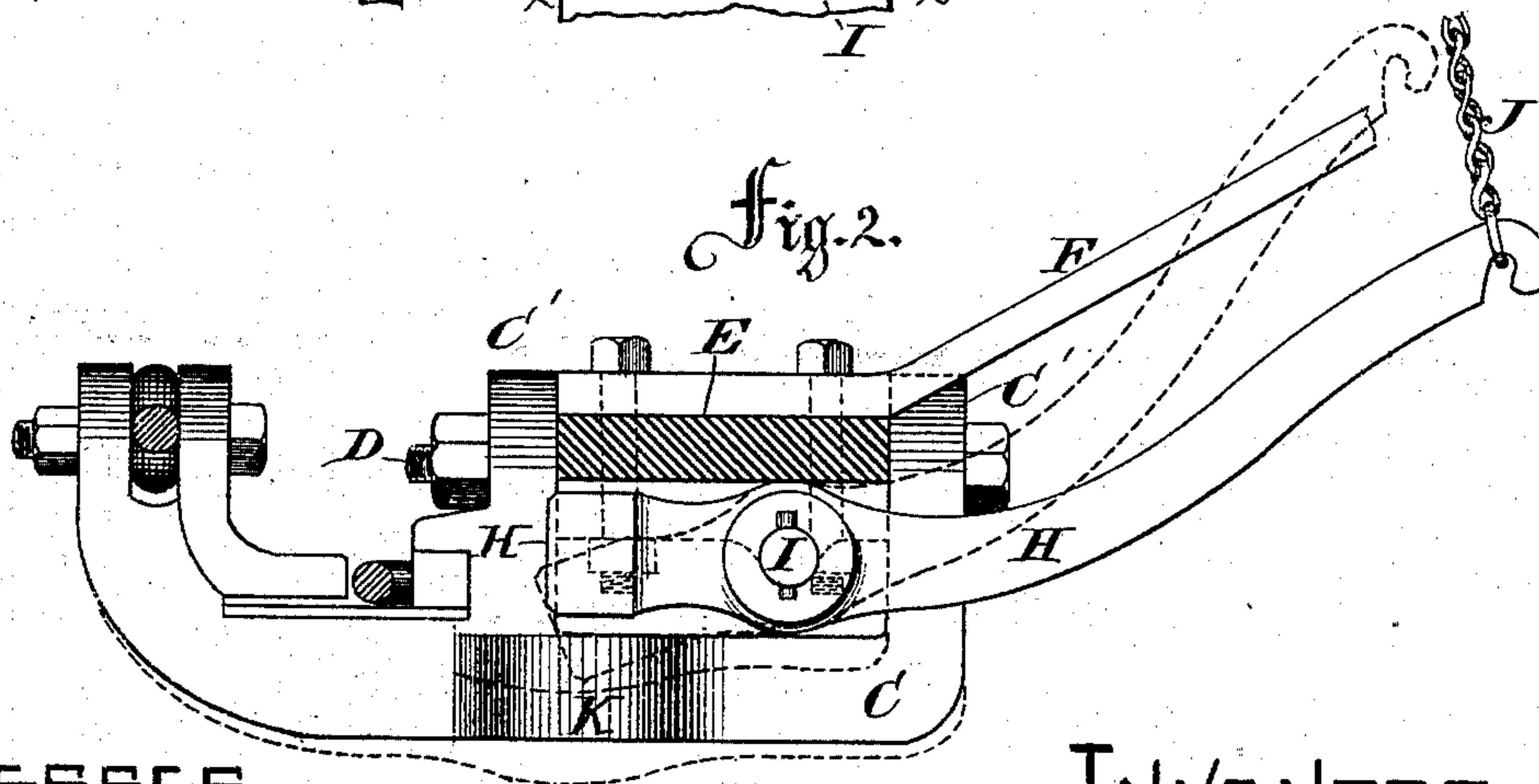


Fig. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

RICHARD A. LEONARD, OF FITCHBURG, MASSACHUSETTS.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 274,793, dated March 27, 1883.

Application filed November 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, RICHARD A. LEONARD, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain

5 Improvements in Mowing-Machines, of which the following is a specification.

This invention has for its object to provide improved means for enabling the finger-bar of a mowing-machine to have a limited vertically-oscillating movement on the pivot or joint that connects it to the finger-bar frame of the machine, so that the outer end of the finger-bar can fall below or rise above the working-level of the inner end; and the invention consists

15 in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of the shoe and a portion of the finger-bar and finger-bar frame of a mowing-machine embodying my invention. Fig. 2 represents a section on line *xx*, Fig. 1, looking toward the shoe and finger-bar.

The same letters of reference indicate the same parts in all the figures.

In the drawings, A represents the inner end of a finger-bar of the ordinary construction, having the reciprocating cutter-bar B.

C represents the shoe, to which the inner end of the finger-bar is rigidly attached, said shoe having ears C' C', by means of which and a connecting pivot-bolt, D, the shoe is hinged to the rigid braces E F, forming a part of the finger-bar frame of the machine. The finger-bar oscillates vertically on its pivot in the usual manner. Heretofore the shoe has been provided at the inner side of the pivot with an upwardly-projecting stud or gag-iron, arranged to bear against the portion of the finger-bar frame to which the shoe is pivoted and prevent the outer end of the finger-bar from falling below the level of the inner end. I dispense with this fixed gag-iron, leaving the shoe in such form that its inner end can swing upwardly and the outer end of the finger-bar can swing downwardly to a considerable extent, so as to displace it below the level of the shoe. The finger-bar is thus adapted to conform more accurately to the surfaces sloping downwardly from level surfaces on which the wheels of the machine may rest. The finger-bar and shoe are lifted bodily with the forward

portion of the finger-bar frame of the machine by a lifting-lever pivoted to the main frame of the machine in the usual manner and connected to the finger-bar frame by a chain.

H represents a lever pivoted on a stud, I, rigidly attached to the under side of the brace E of the finger-bar frame, and having a longer and a shorter arm, the former being connected to the chain J, depending from the lifting-lever, and the latter projecting between the base E and a boss or offset, K, on the shoe C, so as to press downwardly on said offset when the longer arm is raised by the lifting-lever. When the finger-bar is in its normal working position the lever H is in a loose condition—that is to say, it is free to play loosely on its pivot to a limited extent in either direction, and will permit the outer end of the finger-bar to fall until the offset K at the inner end of the shoe forces the shorter arm of the lever upwardly against the part E of the finger-bar frame, and thus arrests the downward movement of the outer end of the finger-bar. When the longer arm of the lever H is raised by the lifting-lever, the lever H has no effect on the finger-bar frame until it reaches the position shown in dotted lines in Fig. 2, and bears against the part E of the finger-bar frame. In moving to said position the shorter arm of the lever H depresses the offset K of the shoe, causing the latter to turn on its pivot and elevate the outer end of the finger-bar several inches, thus enabling the finger-bar to pass over moderate obstructions at its outer end without lifting the shoe and finger-bar frame. A continued backward movement of the lifting-lever after the lever H has reached the position last described lifts the shoe, finger-bar frame, and finger-bar simultaneously, the finger-bar being inclined upwardly from its outer end. The outer end of the finger-bar is thus enabled to pass over higher obstructions than it otherwise could.

It will be seen that the shorter arm of the lever H constitutes an adjustable gag-iron, whereby the outer end of the finger-bar may be allowed to drop below the level of the inner end, or may be raised above said level.

It will be understood that the finger-bar frame and main frame are pivoted independently on the main axle in the usual manner. The main frame and lifting-lever are not shown

in the drawings, their arrangement with reference to the finger-bar frame being well understood.

I claim—

- 5 The combination of the finger-bar frame, the shoe pivoted thereto, having an offset projecting inwardly under a portion of said frame, and having a finger-bar projecting outwardly therefrom, and the lever H, pivoted beneath
10 the finger-bar frame, and connected at its longer end to the lifting-lever on the main frame, and projecting at its shorter end over

the offset of the shoe, and adapted to come in contact above its fulcrum with the upper edge of brace E of the finger-bar frame, as set forth. 15

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 11th day of November, 1882.

RICHARD A. LEONARD.

Witnesses:

HENRY H. CRANE,
ROSCOE A. LEONARD.