(No Model.)

M. P. UPP & J. C. YOUNG.

HEADER.

No. 468,375. Patented Feb. 9, 1892.

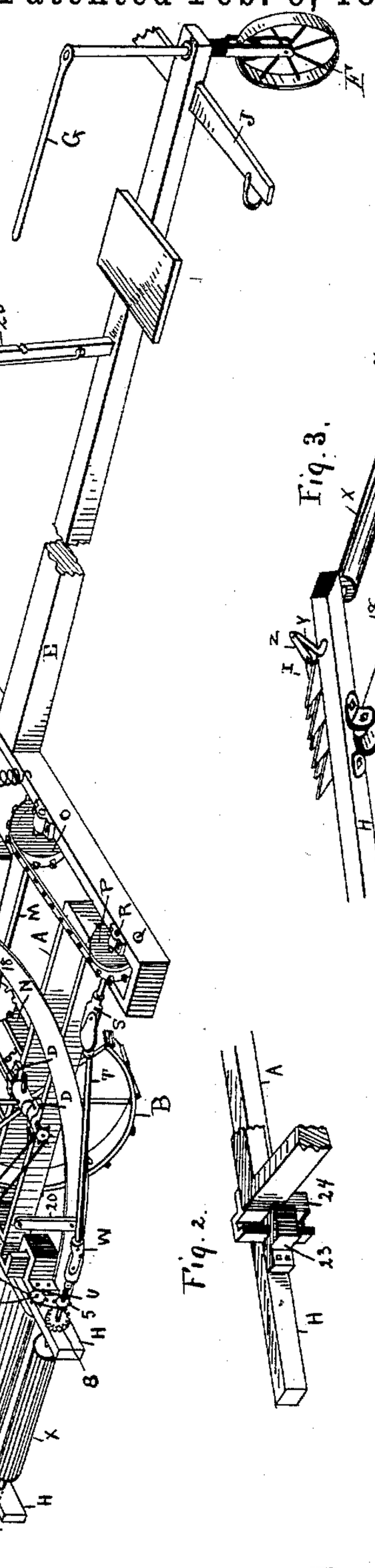

Fig. 1.

Fig. 3.

Fig. 2.

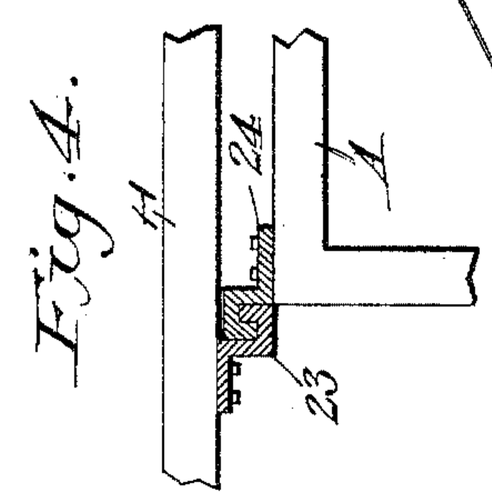

Fig. 4.

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UNITED STATES PATENT OFFICE.

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HEADER.

SPECIFICATION forming part of Letters Patent No. 468,375, dated February 9, 1892.

Application filed December 1, 1890. Serial No. 373,206. (No model.)

To all whom it may concern:

Be it known that we, MELVILLE P. UPP and JOHN C. YOUNG, citizens of the United States, residing at Kilbourne, in the county of Mason and State of Illinois, have invented certain new and useful Improvements in Headers; and we 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 acompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in headers; and it has for its object to provide means whereby the platform of the machine which carries the cutter-bar, &c., may be raised or lowered by suitable means on a perfect level at all times.

In the drawings, Figure 1 represents a perspective view of the header. Fig. 2 represents a perspective view of a part of the platform and main frame of the machine, showing a slide attachment used in connection therewith. Fig. 3 is a perspective view of the under side of the platform, showing connections from a driving-shaft with the sickle-bar and also means for pivoting one end of a lever or arm which is hung from the frame of the machine to the said under side of the platform. Fig. 4 represents a plan view of two guides or castings, one of which is placed on the frame of the machine and the other on the platform of the machine.

In Fig. 1, B B are a pair of carrying-wheels, from the axle C of which is hung the main frame A by boxings D D, as shown.

The tongue as ordinarily used on machines of this class is shown at E, and at the extreme end of the same is secured by any good means the usual bearing and steering wheel F, which is operated by the handle G in rigid connection therewith. A bar J is also shown in connection with the tongue for carrying the doubletrees.

A platform-framing H is secured at the front of the machine by device to be hereinafter described.

The aforesaid driving-shaft C carries a beveled gear-wheel K, which meshes with a second gear-wheel L of the size required, which is rigidly secured to a shorter shaft M, said shaft being journaled at one end in a small projecting arm N, made with the said main frame, and the other end of the shaft is journaled in the rear portion of the said frame A, as shown. On this same shaft M and on the opposite end to the end on which the gear-wheel L is secured is a sprocket-wheel O of the required dimensions, which operates, by means of a sprocket-chain, a similar wheel P, placed in a projecting portion Q of the main frame, substantially as shown. The shaft R, on which this latter wheel is carried, is journaled in the portion Q, and the forward end of the said shaft is provided with a knuckle S, one-half of which is placed on the end of a tumbling-rod T, running toward the front part of the machine, and the forward end of the said tumbling-rod is in working connection with a shaft U by means of a second knuckle W, as shown. The shaft U has its bearings in the frame of the platform H, as may be readily seen, and on its outer or forward end is rigidly secured a small arm Y, which is placed on the end of the shaft U and at right angles to it, thus forming a crank which operates the sickle-bar I. Pivoted to the end of this crank-arm is a short arm or rod Z, which in turn is pivoted to the said sickle-bar I. (Best shown in Fig. 3.)

The elevator generally used on machines of this class may be attached in the usual manner.

The end of the shaft U, to which the power is applied, carries a sprocket-wheel 5, which operates by means of a chain a second sprocket-wheel 6, which drives a shaft 7, carrying a roller to aid in driving the canvas-conveyer V. At the other end of the platform is placed a roller for the canvas to travel around, in order to let the said canvas move the entire length of the platform. The shaft 7 is journaled somewhat above and to the right of the shaft U. On the shaft U, carrying the sprocket-wheel 5, is secured a cog-wheel 8, which meshes with a similar cog-wheel on the ele-

vator, which is not shown, and the cog-wheel on the elevator serves to operate the canvas thereon.

The most important part of our invention may be understood from the following: A beam or lever 9, the forward end of which is pivotally connected with an upright portion 10, which is pivotally secured to the platform H, is hung from or pivoted to a second upright 11, made fast to a portion of the main frame A of the machine and extends rearward, occupying a position directly over the tongue of the machine. The said beam 9 is pivotally or rigidly attached to a cross-piece 12, which runs across the machine and somewhat above it, and to each end of which are secured frame-pieces 13 and 14, each of which is pivoted to an upright portion 15 and 16, as shown. To the free ends of these pieces or bars 13 and 14 is pivoted a reel 17, ordinarily used on machines of this class, of which no description need be given. This reel is revolved by means of a small sprocket-wheel placed on the shaft thereof and a sprocket-chain running between it and a smilar wheel on the end of the driving-axle C. Two curved arms or bars 18 and 19 of metal or wood are hung one on each side of the machine by arms or hangers 20 and 21, which are fastened to the side of the main frame, as shown. These arms 18 and 19 are pivoted to the said hangers 20 and 21, as shown. The rear or upwardly-turned ends are pivoted to the frame portions 13 and 14 near the bar 12, so that the greatest leverage may be obtained. The forward or lower ends of the same arm are pivotally attached by hangers 22 to the forward beam of the platform H, as shown in Fig. 3.

The platform carrying the canvas and sickle-bar is designed to be raised and lowered, and to let this be done in a free and easy manner, and at the same time without any binding of parts, a sliding device, Figs. 1 and 2, is placed on the machine, of which the following is a description: To the platform-frame H is rigidly secured a casting 23 of the form shown at Fig. 2, which slides up and down in a second larger casting 24 of similar form, which is securely bolted to the main frame A of the machine, all of which may be readily understood from Figs. 2 and 4 of the drawings. The lever 9, by which the platform of the machine is raised and lowered, extends backward within easy reach of the operator, who may regulate the said machine as he desires. An arm or upright 25, which is made fast to the tongue of the machine, is designed to hold the said finger in place by means of a spring-finger 26, which springs into notches on the rear side of the upright arm 25. Thus the lever is held in place at any point it is set.

The operation of the machine is as follows: As the machine is moving forward and it is desired to lower the platform, the finger or lever 9 is raised by this movement. The frame composed of the parts 12 13 14 is raised, thus elevating the curved arms 18 and 19, and these being pivoted to the hangers 20 and 21 lower that portion of the arms under the platform H and that portion of the lever 9 forward of the standard 11 must also lower. Thus all parts of the platform, together with the elevator, which may be attached thereto, lower simultaneously, so that the said platform is on a perfect level, and at all times, whether the platform be at its highest or its lowest point, it is always on a level. It is plain that when the finger is raised and the frame-work forward of the standards 15 and 16 lowered the reel 17 must also lower and is always at the same height above the platform. In lowering the finger or lever 9 the exact reverse action takes place. Two springs 27 28 serve to steady the frame 12 13 14 when operating.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a header, a beam or lever placed above the machine, the length of said lever lying in the direction of the length of the machine or from front to rear, and which is pivoted on a standard on said machine, and the forward end of which lever is pivotally attached to an upright secured to the platform, in combination with a tilting frame pivoted above said machine on the standards secured to the main frame, the forward or free end of which carries a reel, and to which frame are hung the arms which are hung pivotally from the main frame of the machine by hangers 20 and 21, which are also pivotally attached to the platform of the machine for the purposes set forth and described, and a sliding connection of the form shown between the platform and the frame of the machine for securing the said platform to the main frame to allow of a vertical movement between the said parts in the manner and for the purposes set forth and described.

2. In a header, the combination, with a tilting frame pivoted, substantially as shown, to two uprights placed on the frame of the machine and whose free or forward portion supports and carries a reel, of a beam or lever which is secured to a portion of the said tilting frame and whose forward extremity is pivoted to an upright 10 of the platform, said beam or lever being also pivoted to an upright 11 on the frame of the machine, the rear portion of the tilting frame being designed to pivotally support two arms, the forward or lower ends of the said arms being pivoted to the forward portion of the platform, and said arms being pivotally hung from the main frame of the machine at a point between the forward pivoted ends and rear or upper pivoted ends of said arms, substantially as set forth.

3. In a header, a beam or lever pivoted to the standard 11 on the main frame and whose forward end is pivotally attached to an up-

right 10 on the platform of said machine, in combination with a tilting frame to which said lever is secured, said tilting frame being pivotally mounted above the machine on two uprights 15 and 16, the forward or free end supporting a reel, substantially as set forth and described.

In testimony whereof we affix our signatures in presence of two witnesses.

MELVILLE P. UPP.
JOHN C. YOUNG.

Witnesses:
JAMES H. GORE,
JESSE CRAGGS.