

(No Model.)

2 Sheets—Sheet 1.

R. H. DIXON.
MOWING MACHINE FRAME.

No. 426,248.

Patented Apr. 22, 1890.

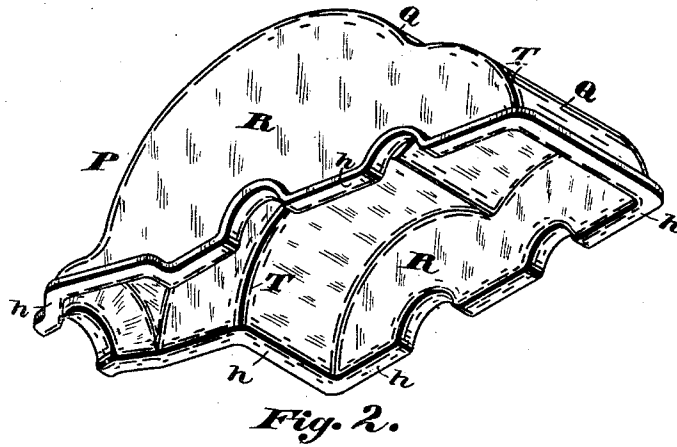


Fig. 2.

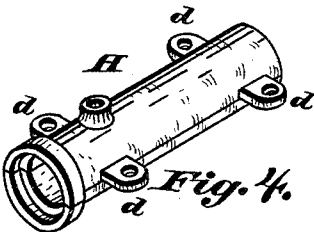


Fig. 4.

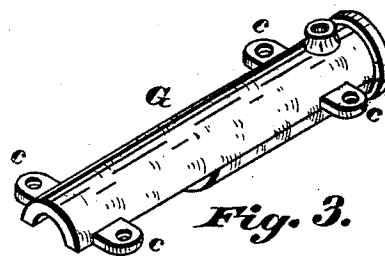


Fig. 3.

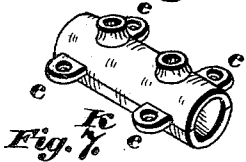


Fig. 5.

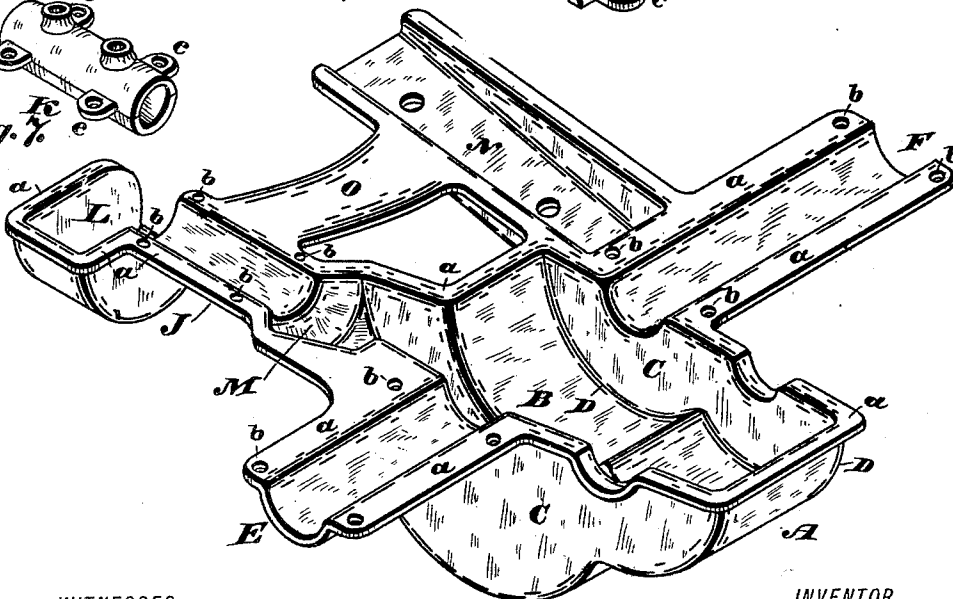


Fig. 1. Robert H. Dixon

INVENTOR

WITNESSES:

Harry Grease.
Chas. R. Miller

BY

W. K. Miller

ATTORNEY

(No Model.)

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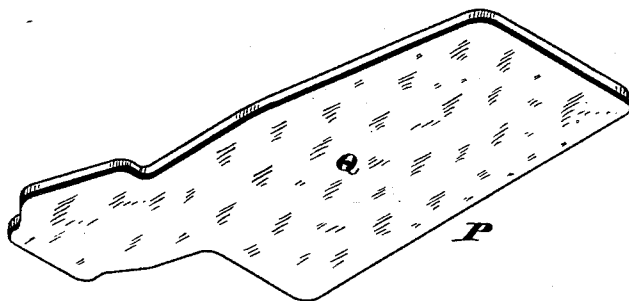


Fig. 6.

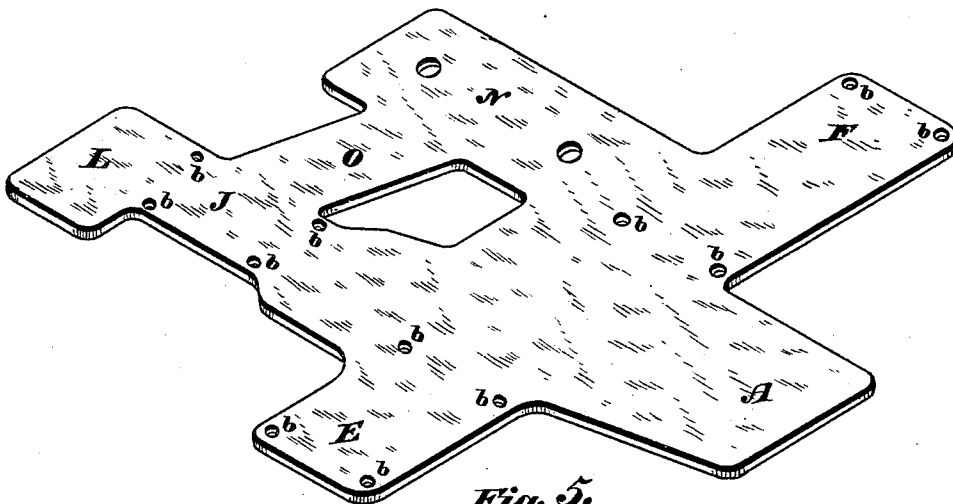


Fig. 5.

WITNESSES:

Harry Trease
Chas. R. Miller

Robert H. Dixon INVENTOR

BY

W. K. Miller

ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT H. DIXON, OF CANTON, OHIO.

MOWING-MACHINE FRAME.

SPECIFICATION forming part of Letters Patent No. 426,248, dated April 22, 1890.

Application filed February 8, 1888. Serial No. 263,392. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. DIXON, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Mowing-Machine Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to an improvement in the manufacture of frames for mowing and harvesting machines; and it consists of a gear-supporting frame swaged from a single piece of sheet metal, preferably of steel, without a joint, seam, or sharp interior angles, and adapted to use journal-boxes made of any suitable cast metal removably secured to the frame for economy and convenience in repairing, as occasion may require.

Heretofore mowing-machine frames have been made of cast metal and without joint or seam; but in frames so made there is and always has been a liability to break because of the impossibility to adjust the required amount of metal in different parts of the frame to the shrinkage of the metal. Consequently some parts of the frame are always on a strain and liable to be broken by a slight stroke or jar at any time, and to a degree to provide against this liability to break a larger amount of metal must be used, whereby the weight and cost are very much increased over a frame swaged from a single piece of light malleable steel plate, as the latter plate is reduced to the minimum required and of an even thickness throughout the frame, thus providing a lighter and stronger frame at a reduced cost.

My invention also relates to the detail and combination of parts as hereinafter described, and set forth in the claims.

Figure 1 is an isometrical view of a mowing-machine frame (from left rear looking down) illustrating my invention. Fig. 2 is same view of gear-cover from left rear looking up. Fig. 3 is same view of the right-hand journal-box for axle-shaft and shaft-cover. Fig. 4 is same view of the left-hand journal-box for axle-shaft. Fig. 5 is an isometrical view from left rear, showing the form of blank as cut from the metal sheet to form the frame

shown in Fig. 1. Fig. 6 is same view from below of blank cut from metal sheet for gear-cover shown in Fig. 2; Fig. 7, same view of crank-shaft box.

Similar letters of reference indicate corresponding parts in all of the figures of the drawings.

I do not wish to be limited to the particular forms of the frame I am about to describe, as my invention is applicable to many forms and sizes of frames and to many machines now in use.

A, the gear-receptacle or body portion of the frame, may be of any desired form adapted to the size and locations of the gear-wheels, having a circular bottom portion B and flaring side portions C, the corners D being rounded, so as to strengthen the form of the frame and avoid sharp interior angles. The body A has axle-shaft-supporting arms E and F, projected laterally from the sides C. The said arms are semicircular in cross-section and have flanged edges *a*, provided with perforations *b*. The axle-shaft journal-box and shaft-cover G are provided with outwardly-projected lugs *c*, having perforations that correspond with the perforations *b* in the flange *a* of the arm F, to which the box is secured by bolts or rivets through the lugs and the flanges. The axle journal-box H has outwardly-projected lugs *d*, perforated to correspond with the perforations *b* in the arm E, by which the box is secured thereto by bolts or rivets. The forwardly and downwardly projected portion J, semicircular in cross-section and having flanged sides *a*, is provided as a support for the crank-shaft journal-box K, said box having lugs *e*, perforated to correspond with the perforations *b* in the flanges *a* of the support J. On the front end of the crank-shaft support is formed a crank-wheel shield L. The recess M is formed to cover the gearing by which the crank-shaft is rotated and connected with the gearing in the body of the frame. I have thought it proper to refer to the gearing as I have, though not shown or described and is no part of this application, simply to explain the form of the swaged frame.

The tongue-socket N is formed as shown, the rear portion connected with the flanged part

of the arm F and the front corner of the body portion. The front portion and the portion J are secured to each other by the brace O, by which the tongue-socket is made rigid with the body of the frame.

The flanges *a* serve the purpose of stiffening the frame, securing the journal-boxes, and forming a trimming-edge by which a uniform outline and finish may be had by passing the swaged frame through a trimmer.

In Fig. 2 is shown the lid or gear-cover P, having a top portion Q, flaring sides R, and rounded corners T, whereby sharp internal angles may be avoided. The lid is also provided about its lower edge with a flange *h*, that corresponds with the flange *a* on the body of the frame to stiffen the rim of the cover and to form a trimming-edge. This cover may be made of plate-steel several numbers lighter than that used for the body.

To prevent the breaking or cracking the plate, as well as to facilitate the swaging, all sharp internal angles should be avoided.

In Fig. 5 is shown the blank as cut from the metal plate, the several parts as lettered forming parts of the frame similarly lettered; Fig. 6, the form of the blank for the cover.

If preferred, the shield L may be separate

and attached to the frame, but is not regarded as a part of the frame.

Having thus fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. A mowing-machine frame formed from a single blank of wrought sheet metal, having a gear-receptacle or body portion A, outwardly-projected axle-supports E and F, and a forwardly-projected crank-shaft support, substantially as set forth.

2. A mowing-machine frame formed from a single blank of wrought sheet metal, having a gear-receptacle, supports for the axle and crank-shaft, as described, and a tongue-socket N and brace O, integral therewith, substantially as set forth.

3. The combination, with a mowing-machine frame formed from a single sheet of metal and having the axle and shaft supports E, F, and *g*, of the detachable journal-boxes G, H, and K, substantially as set forth.

In testimony whereof I have hereunto set my hand this 28th day of January, A. D. 1888.

ROBERT H. DIXON.

Witnesses:

W. K. MILLER,
CHAS. N. MILLER.