

S. CRAWFORD.
Harvester-Frames.

No. 148,352.

Patented March 10, 1874.

Fig 1

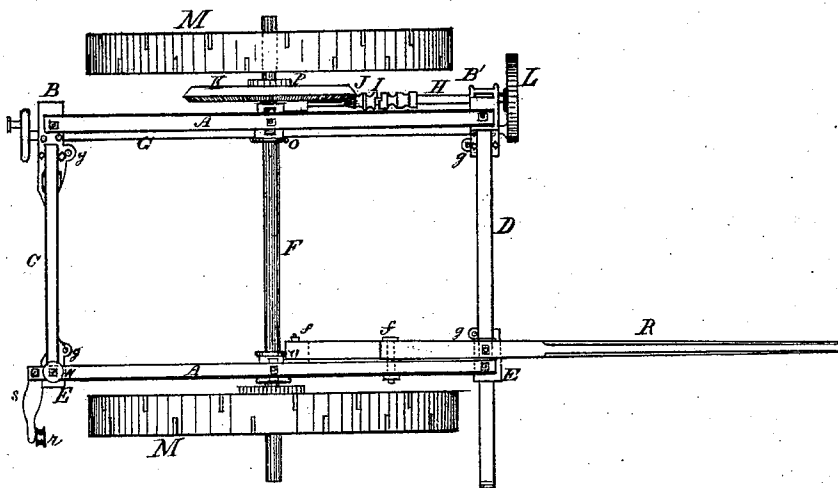


Fig 2.

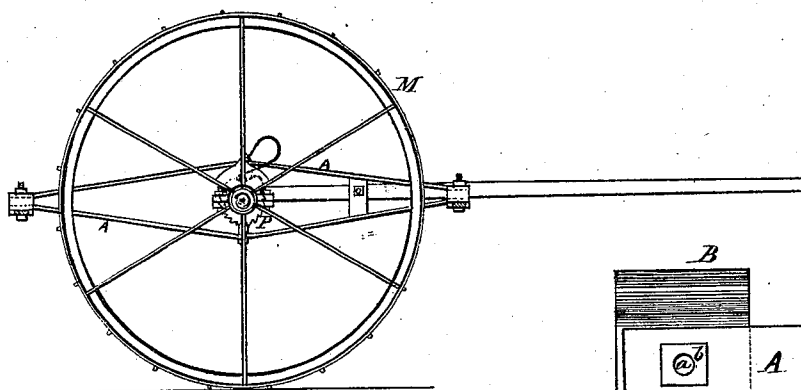


Fig 4

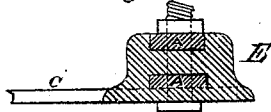
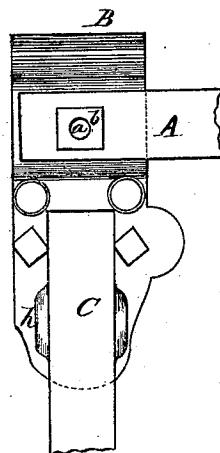


Fig 3.



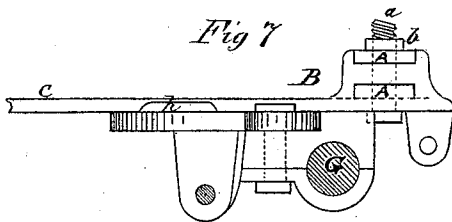
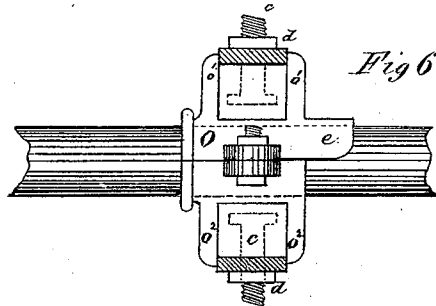
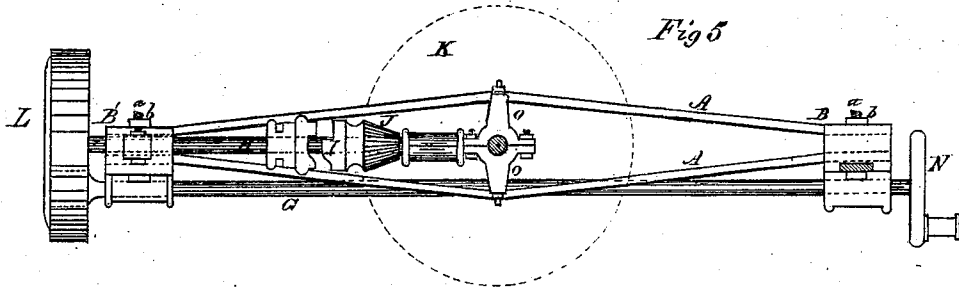
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UNITED STATES PATENT OFFICE.

SAMUEL CRAWFORD, OF LONDON, CANADA.

IMPROVEMENT IN HARVESTER-FRAMES.

Specification forming part of Letters Patent No. 148,352, dated March 10, 1874; application filed October 4, 1873.

To all whom it may concern:

Be it known that I, SAMUEL CRAWFORD, of the city of London, in the county of Middlesex, in the Province of Ontario, Dominion of Canada, have invented certain Improvements in Reaping and Mowing Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention relates mainly to the construction and combination of an iron truss-frame to reaping and mowing machines, arranged in such a manner that the whole will be held together by only four bolts; and the object of the device is to secure lightness, strength, and durability in the said machine.

By reference to the annexed drawings it will be seen that Figure 1 is a plan or top view of the machine. Fig. 2 is a side elevation of the same, showing only one wheel and one side of the truss-frame. Fig. 3 is an end view of one of the corner-irons. Fig. 4 is a top view of one of the combined brackets and corner-irons. Fig. 5 is a side view, enlarged, of one side of the truss-frame and shafts, &c. Fig. 6 is an end view of the center boxes. Fig. 7 is an end view of the rear combined bracket and corner-iron.

AA are the four truss-bars, of solid wrought-iron, about three-eighths of an inch thick, and about two inches wide. They are secured at the ends as follows: The back and front combined brackets and corner-irons B B' receive them. The upper truss-bars are each let into a recess in the top of the brackets and corner-irons, as shown in Figs. 3, 4, and 7, and the lower truss-bars pass through mortise-holes in each of the brackets three-quarters of an inch below the upper truss-bars. EE are the front and rear corner-irons, which receive the opposite truss-bars in the same manner as shown in Fig. 4. The iron front cross-bar, D, and the rear one, C, are one-quarter of an inch wider than the truss-bars, and their ends also pass into mortises in the lower part of the brackets B B and corner-irons E E, as shown in Figs. 4 and 7, and the whole truss-bars and cross-bars are bolted together to the brackets and corner-irons by means of only four bolts, one at each corner. The brackets are provided with bearings of four inches for the pitman-

shafts G, and also have small raised projections or brackets *h h* cast on them to keep the rear bar square and steady in its place. The two shafts G and H are so arranged as to be placed one on each side of the truss, the pitman-shaft G on the inside and the internal gear-shaft H on the outside. The great advantage gained by this will be hereafter shown. The main shaft F runs through the center of the truss-frame at right angles to the shafts G and H through center boxes *o o*, which act as center braces for the said main shaft F, and also act as braces, to which are fastened the truss-bars in the center, as will be more fully shown. There are two extensions, *o¹ o²*, which project upward and downward, respectively, about three inches from the upper and lower portions of the boxes *o*, each having a recess to admit the top and bottom truss-bars A A, as shown in Fig. 6, and securing the said bars at their centers. *c c* are short screw-bolts cast in the upper and lower boxes *o*, respectively, and pass through the top and bottom truss-bars, secured by nuts *d d*, which device prevents them from twisting or spreading. Cast to the upper portion of the said boxes *o* are dirt-protectors *e*, to prevent the earth from getting into the bearing of the shaft F. The tongue rests on a tongue-block on the front bar D, and is bolted to an upward-projecting flange of the front corner-iron E, and its extreme inner end secured by a bolt, as shown in Fig. 1, or extended to the center box *o* and bolted to it. A floor, consisting of cast-iron or wood, is laid on the iron rear and front bars between the truss-frames. The driver's seat will be secured to the floor something in the same manner as it is to the present make of reapers and mowers. The cutter-bar lifter may be bolted to the top of the truss or back end of the tongue in much the same manner as the present ones. There will be a clip on the lifter, which straddles the truss, the whole secured together with one bolt and nut. The chain-pulley is held in its position by one of the truss-bolts of the rear corner-iron E. One of the top truss-bars may be made to extend a few inches beyond the rear cross-bar C, to which is bolted the extension-arm *s*, which holds the chain-pulley *r*. There will be constructed a shield, (not necessary to

be shown,) secured to the truss-frame, and made to cover and guard the bevel-wheel K. The front bar D extends outward about fifteen inches from the truss-frame on the opposite side of the gear, terminating in an eye to receive the drag-bar. A ratchet-wheel, P, is cast to the back of the bevel-wheel K, in which the ratchet-spring and dog operate. The opposite ratchet is placed on the main shaft F, between the outer wheel and the truss-frame.

What I claim as my invention is—

In a reaping and mowing machine, a metallic truss-frame composed of the bars A and

cross-bars C D, connected by the brackets or corner-pieces B' B' E E, and supported at their center by boxes o on the axle, all being combined substantially as described, for the object specified.

London, Ontario, Sept. 10, 1873.

SAMUEL CRAWFORD.

Signed in the presence of—

EDWIN E. SEAGER,

*Of the city of London, in the county of
Middlesex, Student at Law.*

CHAS. MACDONALD,

Of the same place, Student at Law.