C. K. MYERS & J. W. IRWIN.

GRAIN-HEADER.

No. 177,542. Patented May 16, 1876.

Fig. 1

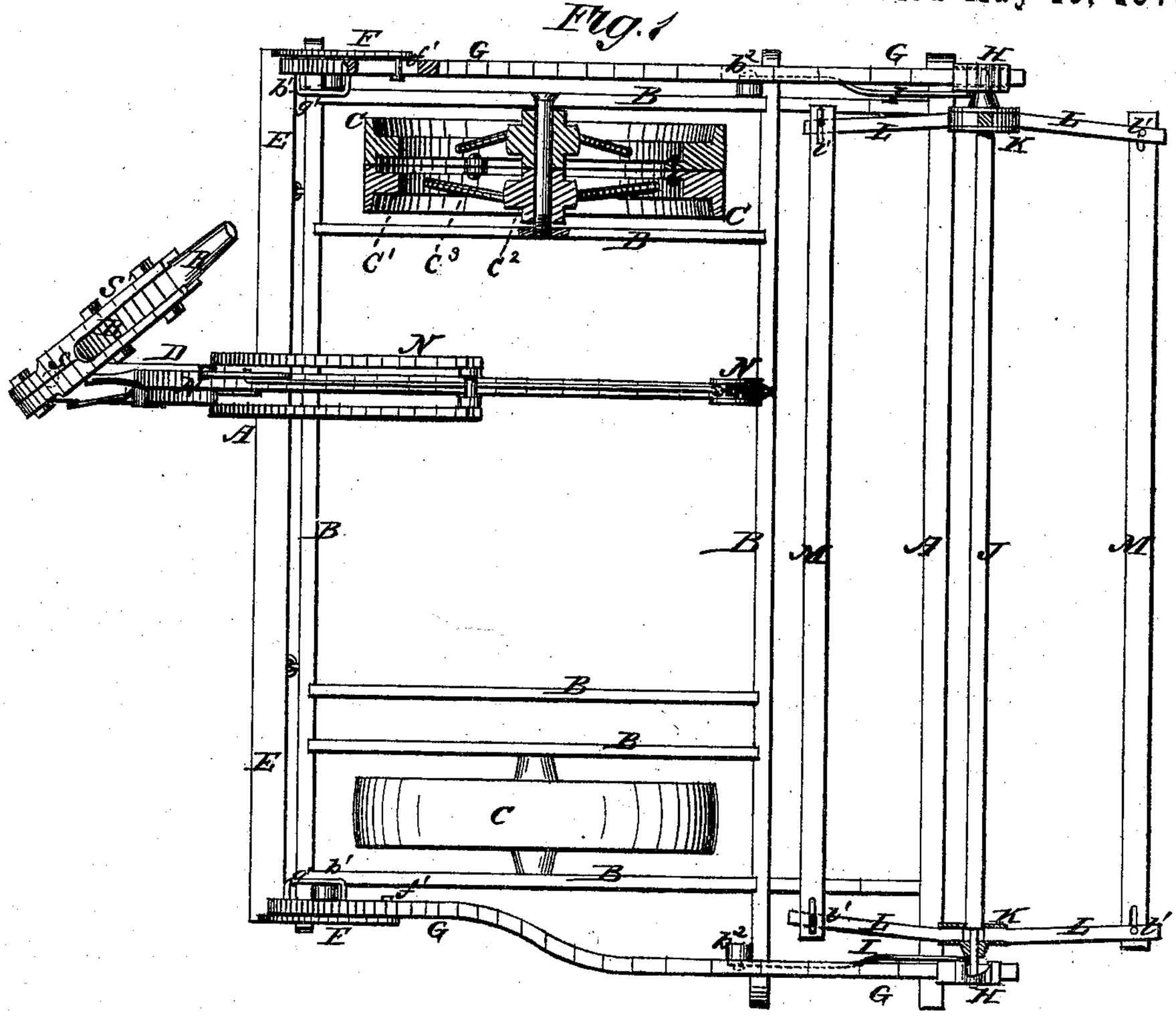


Fig. 2.

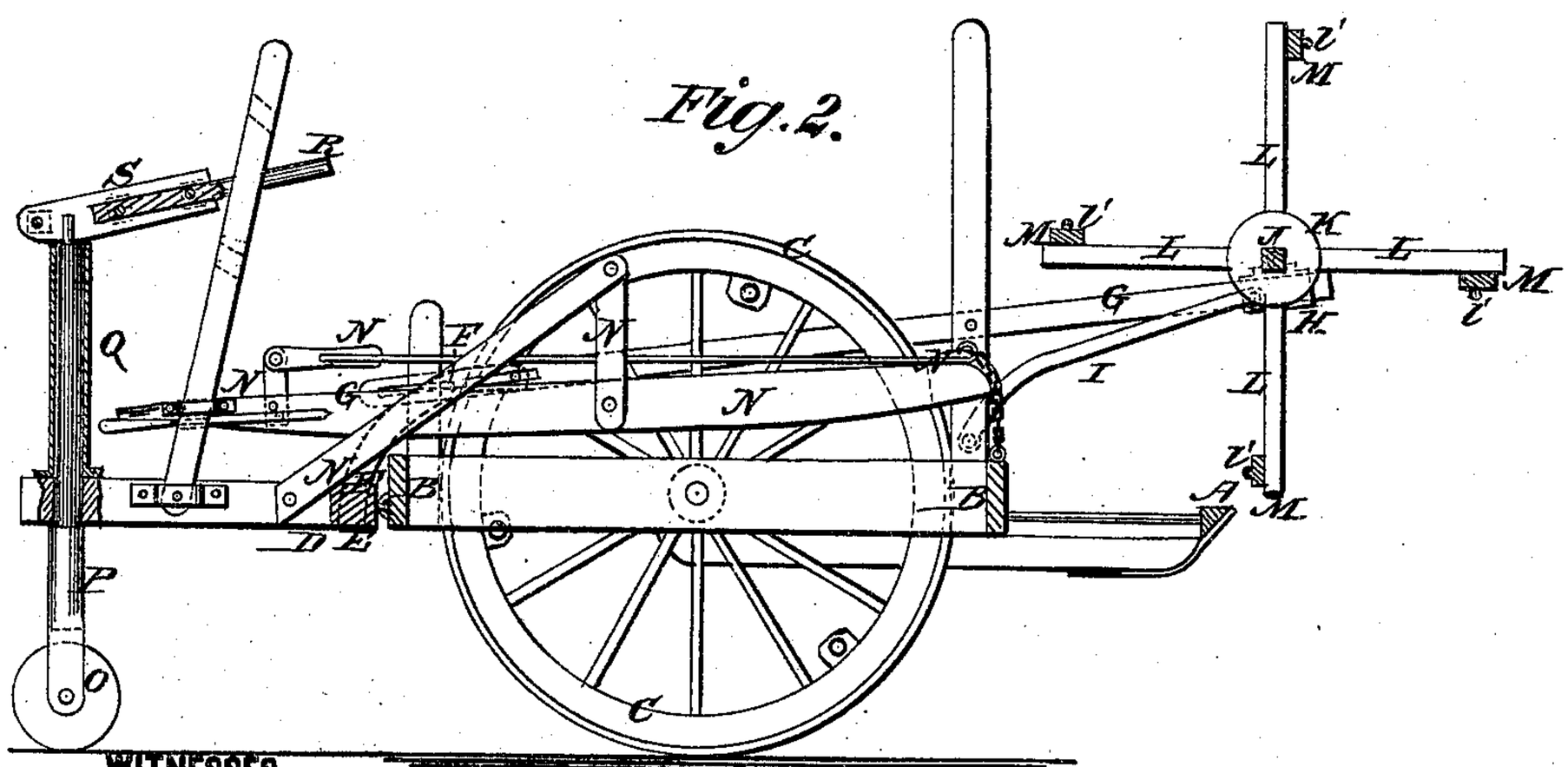
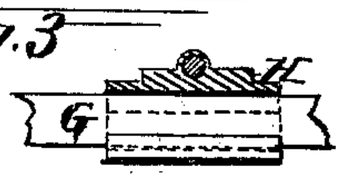


Fig. 3



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UNITED STATES PATENT OFFICE.

CHARLES K. MYERS AND JOHN W. IRWIN, OF PEKIN, ILLINOIS, ASSIGNORS TO SAID MYERS AND PETER WEYRICK, OF SAME PLACE.

IMPROVEMENT IN GRAIN-HEADERS.

Specification forming part of Letters Patent No. **177,542**, dated May 16, 1876; application filed February 21, 1876.

To all whom it may concern:

Be it known that we, CHARLES K. MYERS and JOHN W. IRWIN, of Pekin, in the county of Tazewell and State of Illinois, have invented a new and useful Improvement in Grain-Headers, of which the following is a specification:

Figure 1 is a top view of the frame-work of a header to which our improvement has been attached, the drive-wheel and one of the reel-heads being shown in section. Fig. 2 is a vertical section of the same. Fig. 3 is a detail section of one of the sliding bearings for the reel-shaft.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of grain-headers, so that the reel may be moved farther from and closer to the cutter-bar automatically as the cutter-bar is raised and lowered to operate upon taller and shorter grain.

The invention consists in the connecting-bars, in combination with the tongue-roller and the pivoted levers that support the reel; in the pivoted connecting-bars, in combination with the frame and the sliding bearings of the reel-shaft, placed upon the pivoted reel-supporting levers; in the reel-heads, constructed as hereinafter described, in combination with the reel-shaft, the reel-arms, and the reel-bars; in the clamp, constructed as hereinafter described, for securing the lever adjustably to the shank of the caster-wheel; and in the drive-wheel, formed in two parts by casting hubs and ribbed rims upon the ends of wrought-iron spokes, and securing said parts to each other by bolts, as hereinafter fully described.

A represents the cutter-bar, and B the frame, of a header, which are supported and carried by the wheels C. D is the tongue, the forward end of which is rigidly attached to the roller E. The tongue-roller E is hinged to the rear cross-bar of the frame B, and to its ends are attached curved bars F, to the upper ends of which are attached pins f', which enter longitudinal slots in the rear parts of the levers G. To the rear ends of the levers G are attached keepers g', to receive guide-posts b^1, attached to the rear corners of the frame B. The levers G are pivoted to posts b^2, attached to the forward corners of the frame B, and upon their forward ends are placed bearings H for the journals of the reel-shaft. The bearings H slide upon the ends of the levers G, and to them are pivoted the ends of the curved bars I, the lower ends of which are pivoted to the lower parts of the posts b^2. By this construction, as the cutter-bar A is raised and lowered to adjust it for heading taller and shorter grain, the bars F and levers G raise the reel farther from and lower it closer to the said cutter-bar, and the sliding bearings H and curved bars I push it farther in front of and draw it back toward the said cutter-bar. J is the reel-shaft, the journals of which revolve in the bearings H, and upon it, at the inner ends of said journals, are placed the heads K, that receive and hold the inner ends of the reel-arms L. The heads K are made with holes through them to receive the reel-shaft J, the outer parts of which holes are made round to fit upon the inner parts of the journals of said shaft, and the inner parts are made square to fit upon the square part of the shaft at the inner ends of its journals. To the forward sides of the outer ends of the reel-arms L are swiveled hooks l', which are passed through slots in the ends of the reel-bars M, and are turned partly around, locking the said bars securely in place. By this construction the bars M hold the heads K securely in place upon the shaft J, without its being necessary to use any keys, bolts, pins, or other fastenings. N is the device for raising and lowering the cutter-bar; but about its construction there is nothing new. The rear end of the tongue D is supported by a caster-wheel, O, the shank P of which passes up through the said rear end of the tongue D, and through a long tubular socket, Q, attached to said tongue. The caster-wheel O P is turned to guide the machine by a lever, R, which is connected with the upper end of the caster-wheel shank P by the clamp S. The clamp S is made in two parts, having transverse notches in the adjacent faces of one end to receive the upper end of the shank P, and longitudinal notches in the adjacent faces of the other end to receive the inner end of the lever R, and which are secured to each other,

clamping the said shank and lever between them by bolts. By this construction, by loosening the bolts of the clamp S the lever R may be readily adjusted in any desired position.

The drive-wheel C is made in two parts, each part being formed by casting a rim, c^1, and a hub, c^2, upon the ends of wrought-iron spokes c^3. The spokes c^3 are arranged slightly dishing, which dish is increased by the contraction of the rim c^1, and is so arranged that when the two parts are put together the ends of the hubs c^2 will come in contact before the edges of the rim c^1, so that the dish of the parts will be still further increased by drawing the said rims together. The rims c^1 have ribs upon their inner sides to receive the ends of the spokes c^3, and have lugs formed upon their inner edges to receive the bolts by which the parts of the wheel are secured to each other.

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

1. The bars F, in combination with the tongue-roller E and the pivoted levers G, that support the reel, substantially as herein shown and described.

2. The pivoted bars I, in combination with the frame B and the sliding bearings H of the reel-shaft J, placed upon the pivoted levers G, substantially as herein shown and described.

3. The reel-heads K, constructed as described, in combination with the reel-shaft J, the reel-arms L, and the reel-bars M, substantially as herein shown and described.

4. The clamp S, constructed as described, for securing the lever R adjustably to the shank P of the caster-wheel O, substantially as herein shown and described.

5. The drive-wheel C, formed in two parts by casting hubs c^2 and ribbed rims c^1 upon the ends of wrought-iron spokes c^3, and securing said parts to each other by bolts, substantially as herein shown and described.

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