

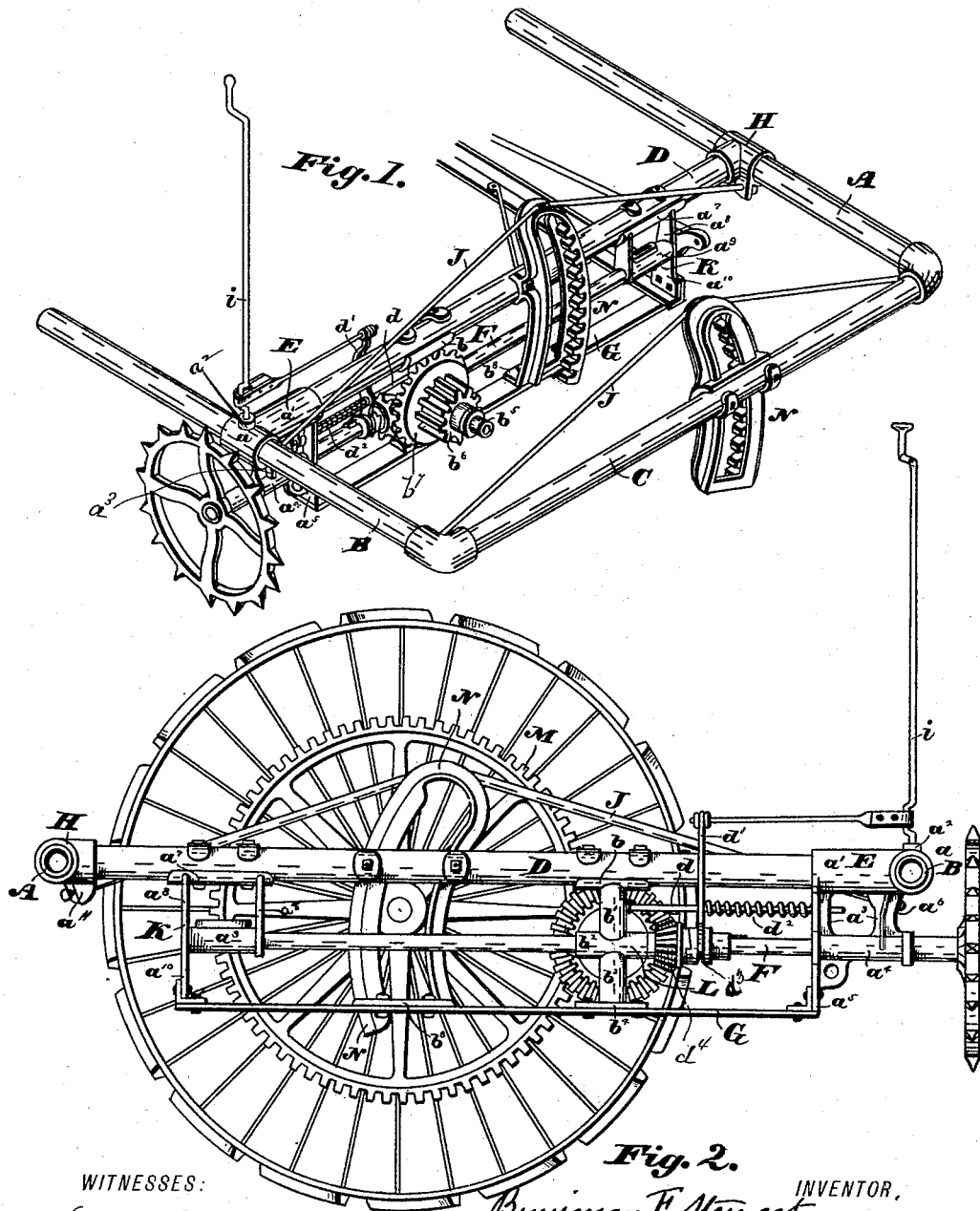
(No Model.)

B. F. STEWART.

HARVESTER FRAME.

No. 385,733.

Patented July 10, 1888.



WITNESSES:
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BENJIMAN F. STEWART, OF NEW PHILADELPHIA, OHIO.

HARVESTER-FRAME.

SPECIFICATION forming part of Letters Patent No. 385,733, dated July 10, 1888.

Application filed August 24, 1887. Serial No. 247,733. (No model.)

To all whom it may concern:

Be it known that I, BENJIMAN F. STEWART, a citizen of the United States, and a resident of New Philadelphia, county of Tuscarawas, State of Ohio, have invented a new and useful Improvement in Harvester-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 improvements in harvester-frames; and it consists in certain features of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

Figure 1 is a perspective view of a fragment of a harvester-frame illustrating my invention. Fig. 2 is an end elevation of same from the grain side.

Similar letters of reference indicate corresponding parts in the accompanying drawings.

As this invention is applicable to some of the harvester frames now in use, I will proceed to describe my improvement, referring to other parts of the frame only as conjunctive thereto.

Letter A represents the front and B the rear sills; C, the outside and D the inside sills, which in this case are formed of metal pipe; but, if preferred, other forms of metal or material may be substituted.

On the rear end of the sill D there is provided a coupler, E, having a cylinder portion, a , through which the pipe-sill B is passed, a body portion, a' , having a female screw cut in the front end thereof, adapted to an annular thread on the end of the sill D. From the body a' there is provided a downwardly-projected portion or portions, as a^3 , which terminate in a journal-box, a^4 , for the harvester actuating shaft F. A lug, a^5 , projected downwardly from the before-mentioned journal-box, is provided, to which the truss-chord G is secured, and a downwardly-projected lug, a^6 , as shown, on coupler E, to which the rear end of the truss-chord J is secured, its front end being secured to a^{11} on the coupler H, and on E a socket, a^2 , for gear shipper i .

The front end of shaft F is supported in a hanger, K, the upper portion, a^7 , of which is semicircular in cross-section and adapted to the circumference of the sill D, and from said

upper portion a downwardly-projected portion or portions, a^8 , which terminate in a journal-box, a^9 , from which a depending arm, a^{10} , forms a support for the front end of the truss-chord G.

A combined spindle-support and journal-box, L, is provided, peculiarly adapted to a light metal harvester-frame, having an upper portion, b , semicircular in cross-section, adapted to the circumference of the sill D, a depending arm, b' , terminating in a journal-box, b^2 , for the shaft F, and an arm, b^3 , on the lower end of which there is provided a flange, b^4 , by which it is secured to the truss-chord G. On the reverse side there is provided an outwardly-projected spindle, b^5 , upon which the pinion b^6 and bevel-wheel b^7 are supported, and about which they may be rotated by engagement with the gear-wheel M. To further support the truss G, there is a flange, b^8 , projected from the gear segment-frame N, to which the truss is secured, this, together with the upper truss secured to the top of the segment-frame and to the ends of the sill D, forming a very rigid section of the frame, and at a point where the strain is more severe than at any other.

A rod, d , is suspended between the parts L and E, by which the gear-shipper rod d' and spring d^2 are held in position, one end of the spring resting against the arm a^3 of coupler E. The energy of the spring is exerted against the shipper-rod d' , by which the clutch d^3 is held in engagement with the clutch on pinion, as shown.

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

1. The combination of the sill D, a truss, G, a shaft, F, a hanger, K, for supporting the front ends of the shaft F and truss G, a coupler, E, having a cylinder portion to embrace the sill B, a body portion, a' , adapted to secure the end of the sill D, a downwardly-projected portion, a^3 , journal-box a^4 , and lug a^5 , substantially as set forth.

2. The combination of the sill D, a truss, G, a shaft, F, a coupler, E, for supporting the rear ends of the shaft F and the truss G, and the hanger K, having a portion, a^7 , semicircular in cross-section and located horizontally beneath and adapted to the surface of the sill D,

arms a^8 , projected downwardly from the portion a^7 , a journal-box, a^9 , supported by the arms and adapted to receive the shaft, and a lug, a^{10} , forming a support for one end of the truss G, substantially as set forth.

3. The combination, in a harvester-frame, of the sill D, sill B, coupler E, hanger K, and truss-chord G, substantially as set forth.

4. The combination, in a harvester-frame, of the sill D, sill B, coupler E, hanger K, truss-chord G, and spindle b^5 , forming a support for a gear-pinion, and the spindle-support L, secured to the sill D and truss G, substantially as set forth.

5. In a harvester frame, the combination of a spindle-support, L, having an upper portion conformed to the sill D and a lower portion conformed to the truss chord G, a journal-box, b^2 , an outwardly-projected spindle, b^3 , and a shaft, F, mounted in the journal-box b^2 , substantially as set forth.

6. In a harvester-frame, the combination, with a sill, D, and the under truss-rod, G, over truss-rod, J, means for securing the end of the rod J to the sill, couplers for securing the truss G to the sill D at each end of the former, and a central support to the two trusses and the sill, substantially as set forth.

7. The combination, in a harvester-frame, of the sill D, under truss-rod, G, over truss-rod, J, means for securing the end of the rod J to the sill, coupler E, connecting the corresponding ends of the truss-chords and sill, hanger K, connecting the under truss-rod with the sill D, spindle-support L, connecting the

truss chord G with the sill D, spindle b^5 , projected laterally from the spindle support L, and the segment-frame N, forming a central support for the truss chords G and J, substantially as set forth.

8. The combination, in a harvester, of the sill D, coupler E, spindle-support L, spindle b^5 , projected laterally therefrom, pinion b^6 , and bevel-wheel b^7 , mounted on the spindle, journal-box b^2 , shaft F, mounted therein, bevel-wheel d^1 , and clutch d^2 , mounted on the shaft, rod d , spring d^3 , and gear shipper d' in engagement with the clutch d^2 , substantially as set forth.

9. The combination, with the sill D, coupler E, hanger K, and the shaft F, supported in the coupler E, and spindle support L, of a spindle projected laterally therefrom, gear with clutch-teeth mounted on the shaft F, a gear-clutch mounted on the shaft F to engage the clutch-teeth of the gear on the shaft, a rod suspended between the coupler E and spindle-support L, a spring located on the rod, and a gear-clutch shipper in engagement with the clutch, whereby the shipper is pressed by the spring normally in a direction to keep the clutch on the shaft F in engagement with the gear on said shaft, substantially as set forth.

In testimony whereof I have hereunto set my hand this 19th day of August, A. D. 1887.

BENJIMAN F. STEWART.

Witnesses:

W. K. MILLER,

CHAS. R. MILLER.