

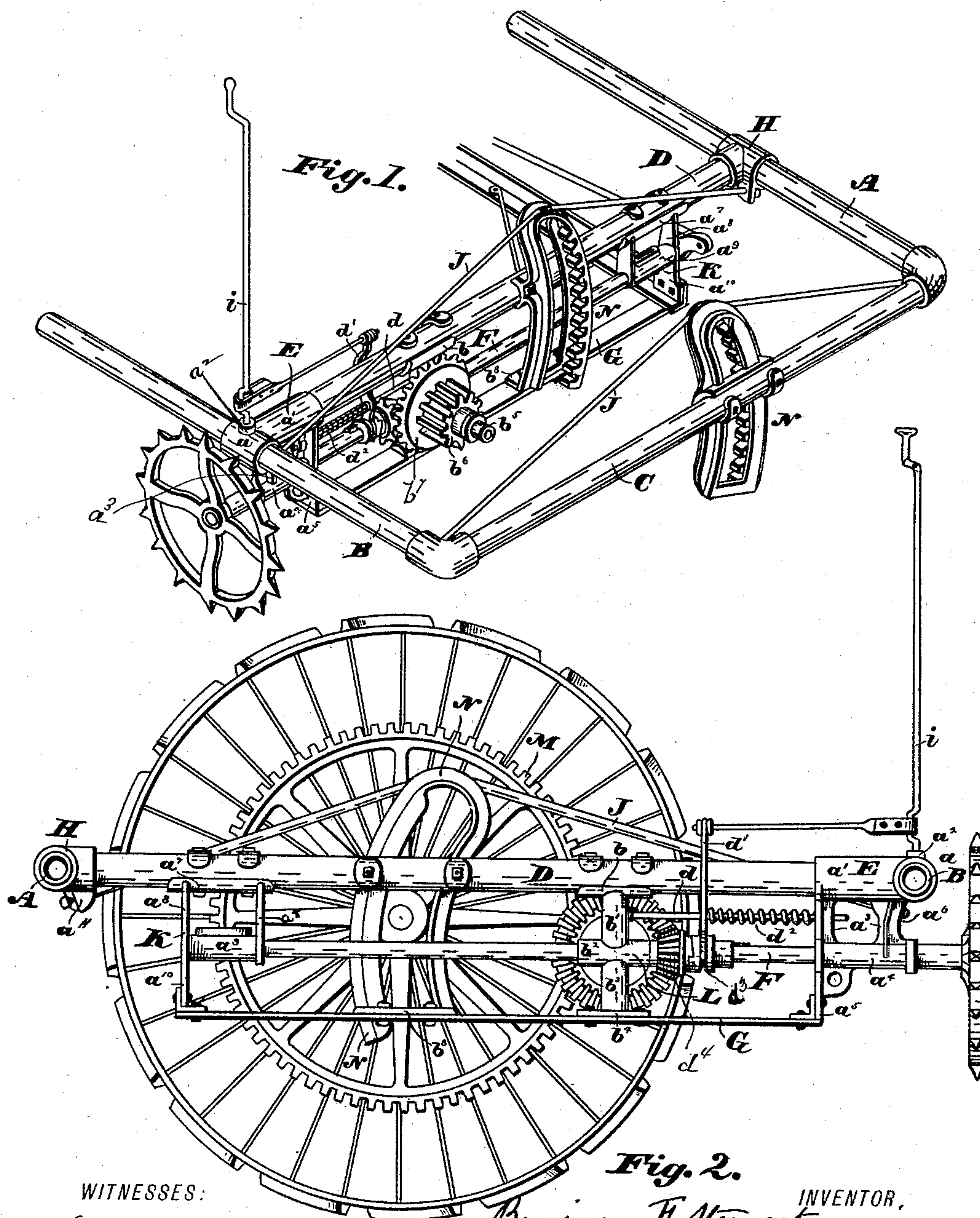
(No Model.)

B. F. STEWART.

HARVESTER FRAME.

No. 385,733.

Patented July 10, 1888.



WITNESSES:

Harry Freese  
Chas. F. Miller

Benjamin F. Stewart, INVENTOR.

BY

W. K. Miller, ATTORNEY.



# UNITED STATES PATENT OFFICE.

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  
5 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,  
10 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.

15 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,  $b^5$ , and a  
20 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  
25 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,  
30 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  
35 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. 40

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-  
45 wheel  $d^4$ , and clutch  $d^3$ , mounted on the shaft, rod  $d$ , spring  $d^2$ , and gear shipper  $d'$  in engagement with the clutch  $d^3$ , substantially as set forth.

9. The combination, with the sill D, coupler  
50 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  
55 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  
60 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. 65

BENJIMAN F. STEWART.

Witnesses:

W. K. MILLER,  
CHAS. R. MILLER.