(Model.)

J. W. IRWIN.

HARVESTER.

No. 273,686. Patented Mar. 6, 1883.

Fig. 1.

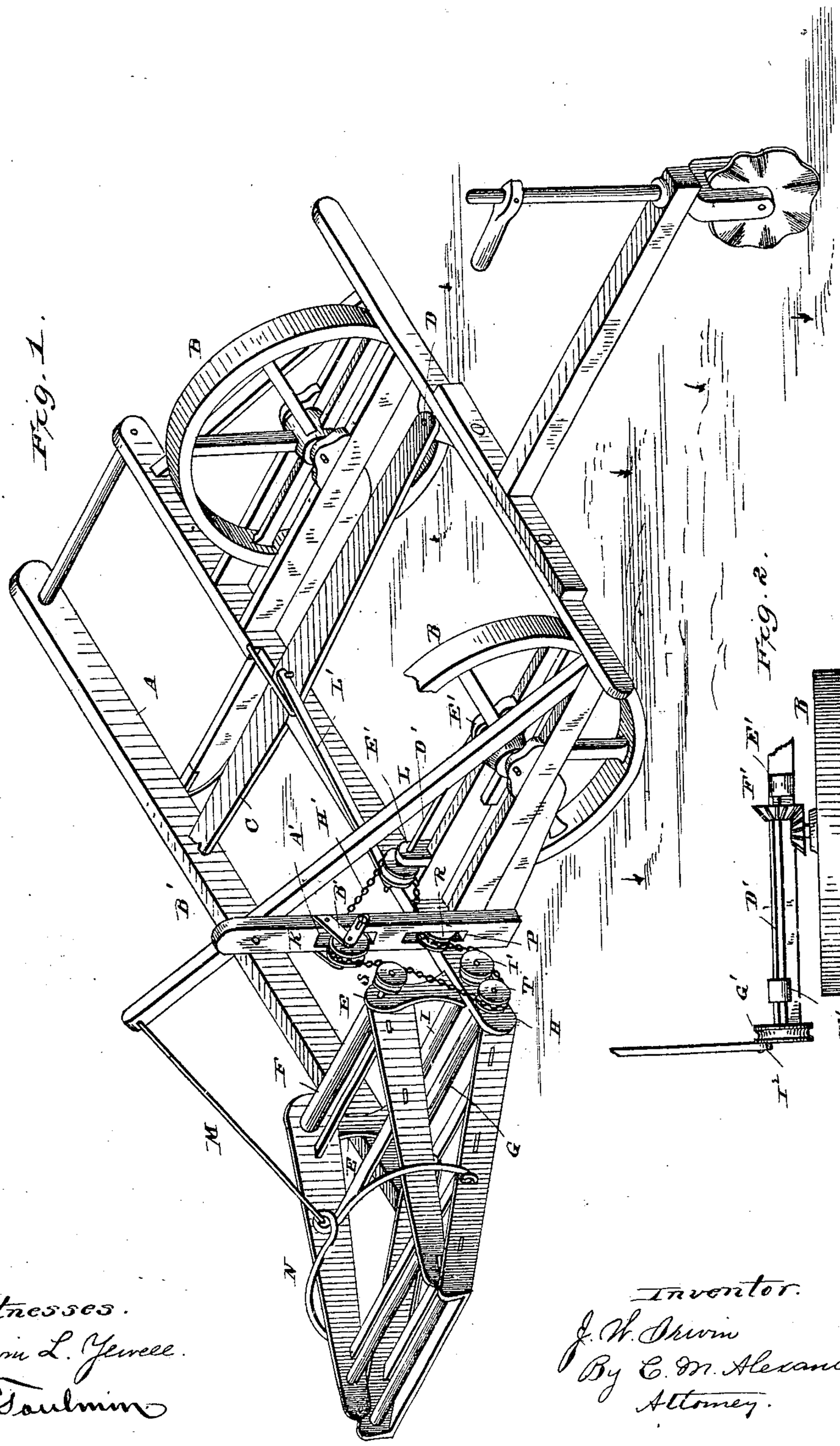

Fig. 2.

Witnesses.
Edwin L. Yewell.
H. A. Toulmin

Inventor.
J. W. Irwin
By C. M. Alexander.
Attorney.

UNITED STATES PATENT OFFICE.

JOHN W. IRWIN, OF PEKIN, ILLINOIS, ASSIGNOR TO P. WEYHRICH & CO., OF SAME PLACE.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 273,686, dated March 6, 1883.

Application filed November 2, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN W. IRWIN, of Pekin, in the county of Tazewell, and in the State of Illinois, have invented certain new and useful Improvements in Harvesters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in that class of machines known as "heading-harvesters;" and it has for its object to provide an improved system of mechanism for operating the elevator, as more fully hereinafter specified. This object I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my improved machine, showing one wheel broken in order to represent the other parts; and Fig. 2 illustrates a detached view, showing a portion of the mechanism for operating the elevator and the sickle-bar.

In the drawings, the letter A indicates the frame of the machine, which is mounted upon wheels B, as usual.

B′ represents the finger-bar at the front of the machine, which is constructed as usual, and C a vibrating lever fulcrumed at D to the machine, the object of which is to operate the sickle-bar; but as such sickle-bar forms no part of my invention it is not shown, and the operating-lever is represented as being broken off near its forward end.

The letter E indicates two vertical standards, secured at one side to the frame of the machine, in which the journals of the lower roller F of the upper elevating-frame have their bearings, the lower end of said upper elevating-frame being loosely mounted upon the journals of said roller, so as to swing freely thereon. The lower roller G of the lower elevating-frame has its journals set in bearings at the ends of the finger-bar and the transverse bar H, respectively, at one side of the machine. The lower end of the lower elevator-frame is loosely secured to the journal of its lower roller, so as to swing freely thereon.

The letter I indicates a roller the journals of which have their bearings in the finger-bar and the transverse bar H, near the roller G, as indicated.

To the frame A is secured a vertical standard, K, just at the rear of the elevator-frames, and to the upper end of said standard is attached an inclined bar, I, the lower end of which is fastened to the frame, the upper end having connected to it a rope or chain, M, which is secured to a bail, N, attached to the lower elevator-frame in such manner as to support it at the proper angle. The standard K is slotted at P, and is provided with a pulley, R, grooved on its periphery, and the elevator-rollers have their shafts provided with similar grooved pulleys, lettered S and T, respectively. The shaft of the roller I is provided with a grooved pulley, as indicated by I′. The standard K is also provided with a recess, A′, and with adjustable pivoted arms B′, carrying a roller, C′, one of the arms at each side being slotted, as shown, and confined to the standard by a set-screw, so that the parts may be adjusted for the purpose more fully hereinafter specified.

The letter D′ indicates a shaft journaled in bearings E′, and provided at one end with a beveled cog-wheel, F′, which intergears with a similar wheel on the axle of one of the driving-wheels. To the other end of said shaft is secured a grooved pulley, G′, as indicated.

The letter H′ indicates an endless chain, which passes around the above-mentioned pulleys and serves to give motion to the elevating apparatus.

The pulley G′ is provided with a crank-pin, I^2, to which is secured loosely one end of a pitman, L′, which connects with the vibrating lever which operates the sickle-bar.

The elevator-frames are so arranged that the forward end of the upper frame rests between the sides of the lower frame, and is adapted to slide upon the same, so as to permit the two frames to accommodate themselves to each other when elevated or depressed. When the grain is carried by the carrier apron or belt it is delivered between the lower belt-rollers and the lower ends of the belts of the respective elevator-frames. The said belts are carried in proper direction by the system of

pulleys and the chain before mentioned, so as to elevate the cut grain, and when any excess of material is delivered to the elevator the upper frame automatically rises by the pressure of the body of the material, and vice versa, so as to provide for the proper delivery of any bulk of material to be carried off.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, in a harvester, of the elevator-frame pivoted to the main frame, the carrying-belts and their rollers, the upright standard forming part of the main frame, and having suitable slots for the passage of the operating-chain, the upper pulleys secured to the upright or standard by means of adjustable supports, and the driving-shaft, pulley, and driving-chain, all arranged to operate substantially in the manner specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 9th day of October, 1882.

JOHN WESLEY IRWIN.

Witnesses:
J. M. JAMES,
JOHN L. SMITH.