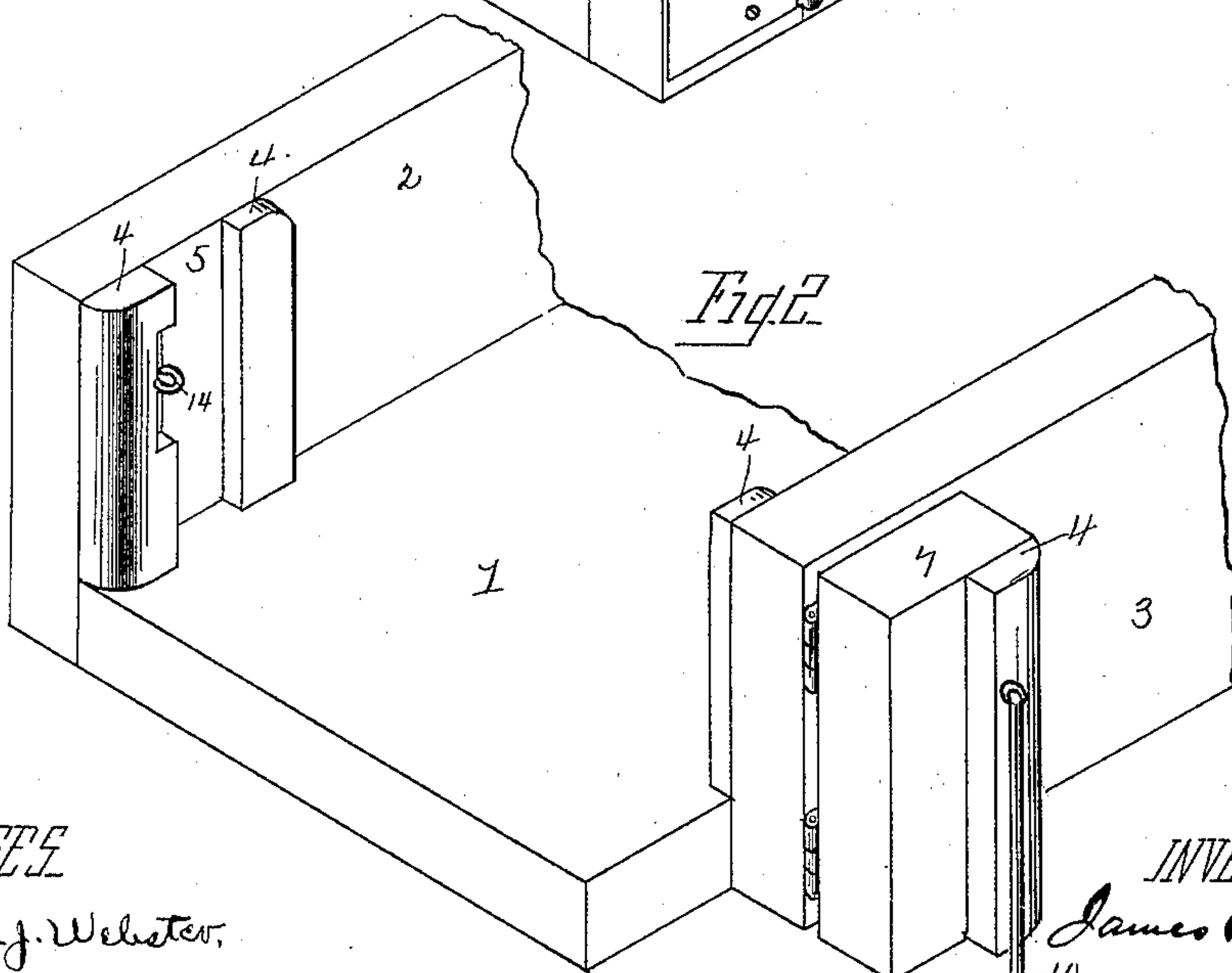
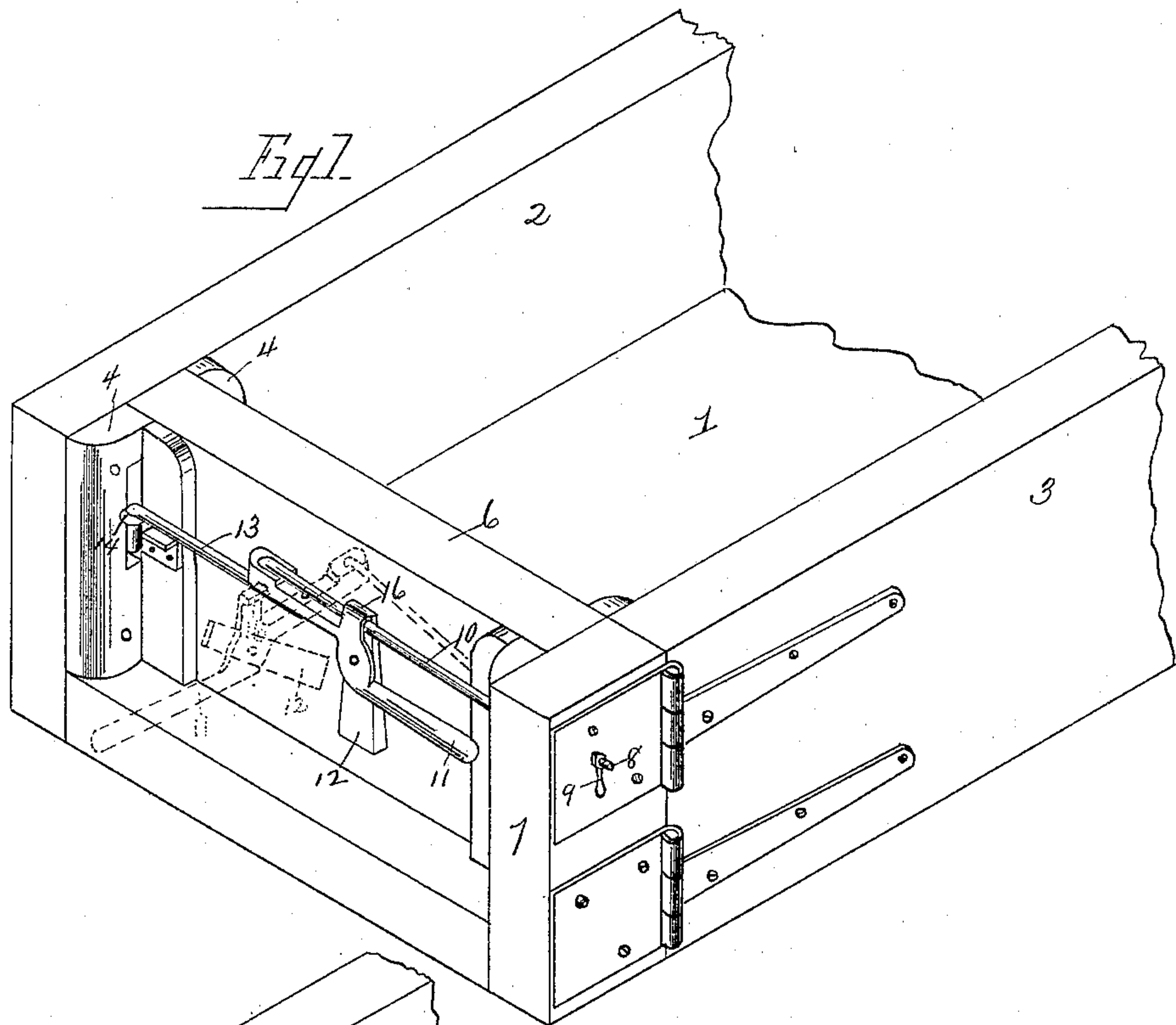


(No Model.)

J. P. MARSHALL.  
END GATE.

No. 445,678.

Patented Feb. 3, 1891.



WITNESSES

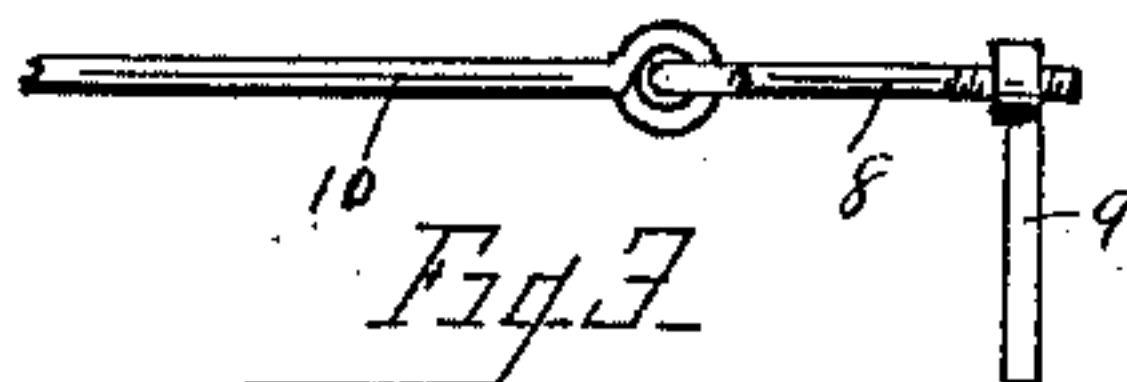
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# UNITED STATES PATENT OFFICE.

JAMES P. MARSHALL, OF BOWLING GREEN, OHIO.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 445,678, dated February 3, 1891.

Application filed June 23, 1890. Serial No. 356,380. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES P. MARSHALL, of Bowling Green, in the county of Wood and State of Ohio, have invented certain new and useful Improvements in End-Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

This invention relates to an improvement in end-gates.

The object of the invention is to produce an end-gate of such construction that it may be readily removed from the cart or wagon using the same, and which will require less time and less space for its removal than with end-gates of the ordinary construction.

A further object is to produce an end-gate which when once locked in place will be permanently held against opening or working loose from the jar and vibration imparted to the wagon in passing over the roads.

A further object is to produce an end-gate carrying mechanism for locking the same in place, which end-gate and mechanism shall be of great simplicity of construction, high efficiency and durability in use, and cheapness of production.

With these objects in view the invention consists in providing an end-gate with a lever carrying a rod having a pivotal connection therewith, which lever has an adjustable connection with one side of the wagon, in combination with a rod also having pivotal connection with the lever and a removable connection with the opposite side of the wagon, and means whereby the said rods may be operated to clamp the end-gate within the body and lock the same in place.

The invention further consists in the various novel details of construction, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming part of this specification, and in which like numerals of reference indicate corresponding parts, I have illustrated one form of device embodying the essential features of my invention, although the same may be carried

into effect in other ways without in the least departing from the spirit thereof; and in these drawings—

Figure 1 is a perspective view of a portion of a wagon-body, showing the end-gate in place thereon. Fig. 2 is a similar view showing the end-gate removed; and Fig. 3 is a detached view showing the connection between one of the rods and the eyebolt carried by a swinging section, which admits of the end-gate being removed.

Referring to the drawings, 1 designates the bottom of the wagon-body, and 2 and 3 the sides thereof, to the inner sides of each of which are secured vertical strips 4, forming guides 5, in which the end-gate 6 rests. The side 3 is provided with a hinged section 7, adapted to be swung to one side when the end-gate is to be removed, as shown in Fig. 2, which section carries one of the strips 4, as will be clearly seen. Within the hinged section just referred to is secured an eyebolt 8, carrying on its outer end a tail-nut 9, by means of which the said eyebolt may be adjusted, for a purpose that will appear later on. The inner end of the eyebolt is engaged by a rod 10, carrying at its end a hand-lever 11, which lever carries a locking-latch 12. At a point preferably between the end of the hand-lever and the point at which the locking-latch is located is journaled a rod 13, the opposite end of which is bent into a toe adapted to engage the screw-eye 14, secured to one of the strips 4 on the side 2, preferably the outer strip.

As will be seen by reference to Fig. 1, the locking-lever is provided with an inwardly-extending flange 16, adapted to engage the rod 10 when the parts are in locked position.

Having thus described the different parts of my device, I will explain the manner of its operation.

When the end-gate is in the position shown in Fig. 1 and it is desired to remove the same, the locking-latch 12 is turned down, as shown in dotted lines, which releases the hand-lever and allows it to be swung out, as will be readily seen by reference to the dotted position shown in the above figure. The rod 13 is then drawn out of engagement with the screw-eye 14, when the hinged section 7, and with it the locking mechanism, may be turned to one side, as shown in Fig. 2, thereby allow-



ing the end-gate to be removed. After the load has been deposited the end-gate is replaced and the section 7 swung around until the rod 13 is again brought into engagement with the screw-eye 14, which forms a pivotal point for the said rod. The hand-lever is then forced in until the flange 16 comes over the rod 10 and the locking-latch turned into the position shown in full lines in Fig. 1, when the device is once more intact. By means of the tail-nut 9 the parts may be adjusted so as to place the end-gate under any desired tension, so as to prevent the same working loose or rattling.

From the foregoing description the advantages of my improved end-gate will be apparent. It will be seen that it may be readily removed and replaced within the wagon or cart with but little labor; and at the same time so clamp it in place that all possibility of its loosening or working out will be overcome.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. In an end-gate, the combination of a hand-lever, rods carried thereby and connecting with the sides of the wagon, a flange formed on the said lever and adapted to engage one of the rods, and a locking-latch adapted to engage said flange.

2. In an end-gate, the combination, with one of the sides of the wagon, of a swinging section secured thereto carrying an eyebolt, a rod pivoted to the said eyebolt, a hand-lever carried by the said rod, and a rod carried by the hand-lever and adapted to engage a permanent portion of the wagon.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

JAMES P. MARSHALL.

Witnesses:

OTIS BEVERSTOCK,  
R. S. SWEET.