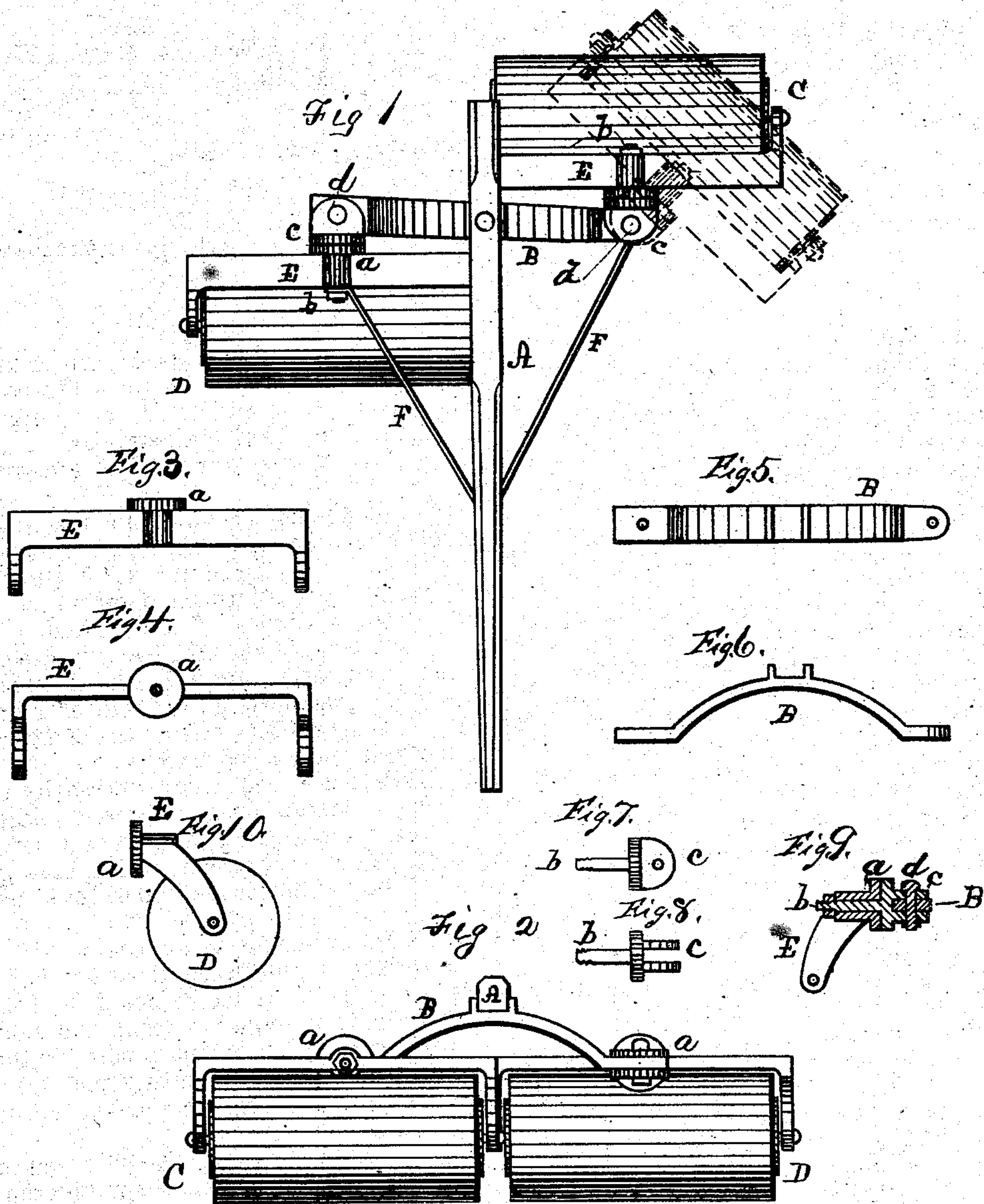


J. WOOLRIDGE.  
Land-Rollers.

No. 158,560.

Patented Jan. 5, 1875.



Witnesses  
E. J. West  
J. P. Smith

John Woolridge  
Inventor



# UNITED STATES PATENT OFFICE.

JOHN WOOLRIDGE, OF DEAN'S CORNERS, ILLINOIS, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO ABEL B. SMITH, OF SAME PLACE.

## IMPROVEMENT IN LAND-ROLLERS.

Specification forming part of Letters Patent No. **158,560**, dated January 5, 1875; application filed November 13, 1874.

*To all whom it may concern:*

Be it known that I, JOHN WOOLRIDGE, of Dean's Corners, in the county of Lake and State of Illinois, have invented new and useful Improvements in Land-Rollers, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view; Fig. 2, a rear end view; Figs. 3 and 4, top and side views of the roller-frame; Figs. 5 and 6 top and side views of the cross-bar of the main frame; Figs. 7 and 8, details of the joint; Fig. 9, a cross-section of the joint; and Fig. 10, an end view of the roller-frame and roller.

The object of this invention is to improve the main and roller frames of a land-roller of the class heretofore patented to me on the 21st day of January, 1873; and the improvements consist in making the cross-bar or connecting-bar which connects the two rollers together of a single piece, and in improved joints for attaching this connecting-bar and roller-frames together.

In the drawing, A represents the tongue or draft-pole; B, the cross-bar of the main frame; C D, the rollers; E, the roller-frames; F F, the braces; *a*, a face-plate or bearing on the roller-frame; *b*, a pin or pivot; *c*, ears for connecting the pivot or bolt *b* to the bar B; and *d* a pivotal bolt. The main frame is made of the ordinary wood tongue A, with a curved iron cross-bar, B, bolted together and held in place by suitable braces F. The bar B may have the ends carried down at an angle instead of a regular curve, if desired. To each end of the cross-bar B there is pivoted a bolt, *b*, by means of the ears *c* and the pivotal bolt *d*, which bolt *d* passes through an opening or hole centrally located in the roller-frames E, as shown at Fig. 4. The roller-frame E, as

shown, is made of a single bar of iron or casting, brought or bent down at the ends, so as to project forward or backward according to the location of the frame in reference to the bar B, into which the rollers C D are journaled.

By this arrangement I am enabled to make the roller-frame of a single bar or piece, and by pivoting them at the center, as shown, the rollers have a free floating movement, so as to conform to the surface of the ground, and by pivoting the rear one to the bar B by means of the bolt *d*, it has in addition to the floating movement free play in the circle, of which the pin *d* forms a center, to facilitate the turning of the roller around corners, &c.

The roller-frame need not necessarily be made from a single piece. The end pieces and the main cross-bar may be made separately, and be bolted together. This, in large frames, will be the better method of construction.

What I claim as new is as follows:

1. The tongue A and fixed cross-bar B, in combination with the roller-frames E E, double swivel, Fig. 9, arranged in front and rear of the bar, the rear roller being pivoted to the end of the bar B, having a floating and circular movement, as and for the purpose specified.

2. The double swivel, Fig. 9, composed of the bolt *b*, ears *c*, and bolt *d*, in combination with the roller-frame E, and cross-bar B, the rollers being attached to the ends of the said bar B, one in front and the other in rear, as specified.

JOHN WOOLRIDGE.

Witnesses:

E. A. WEST,  
O. W. BOND.