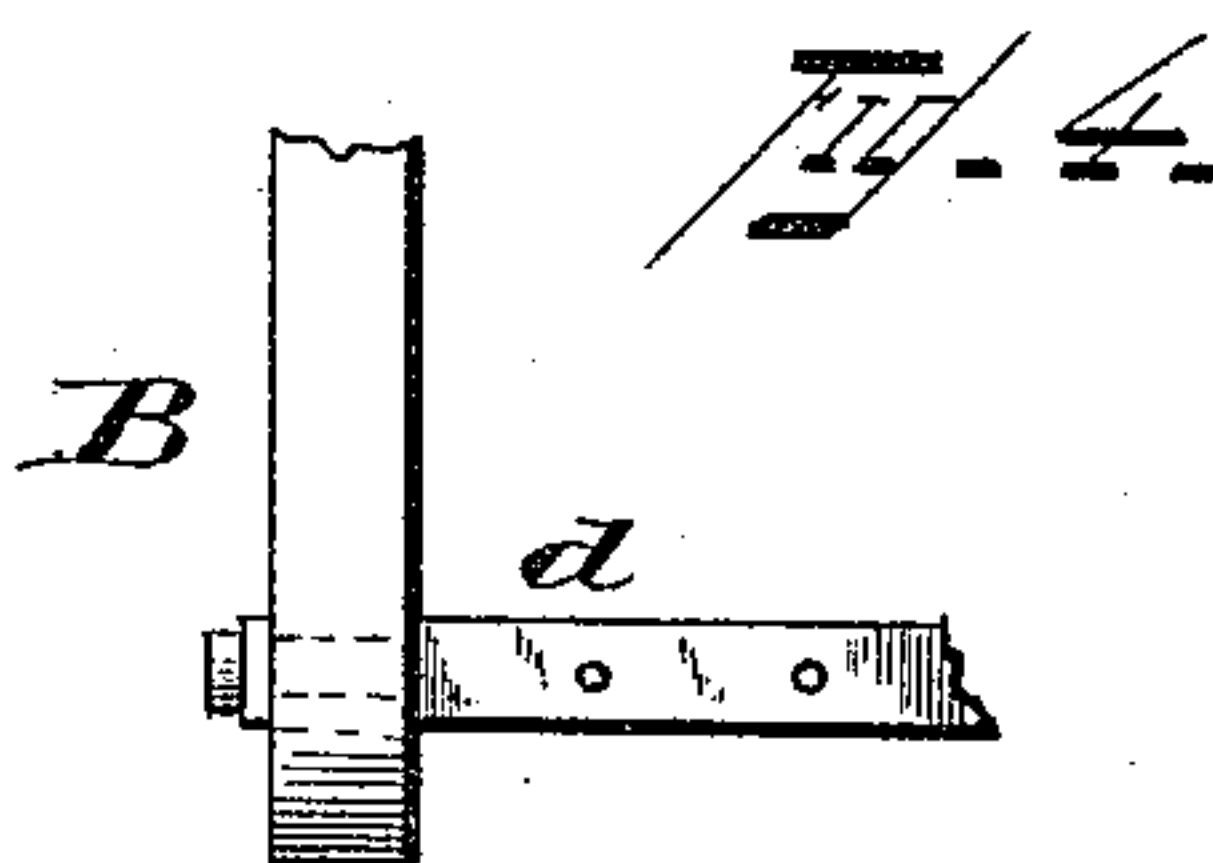
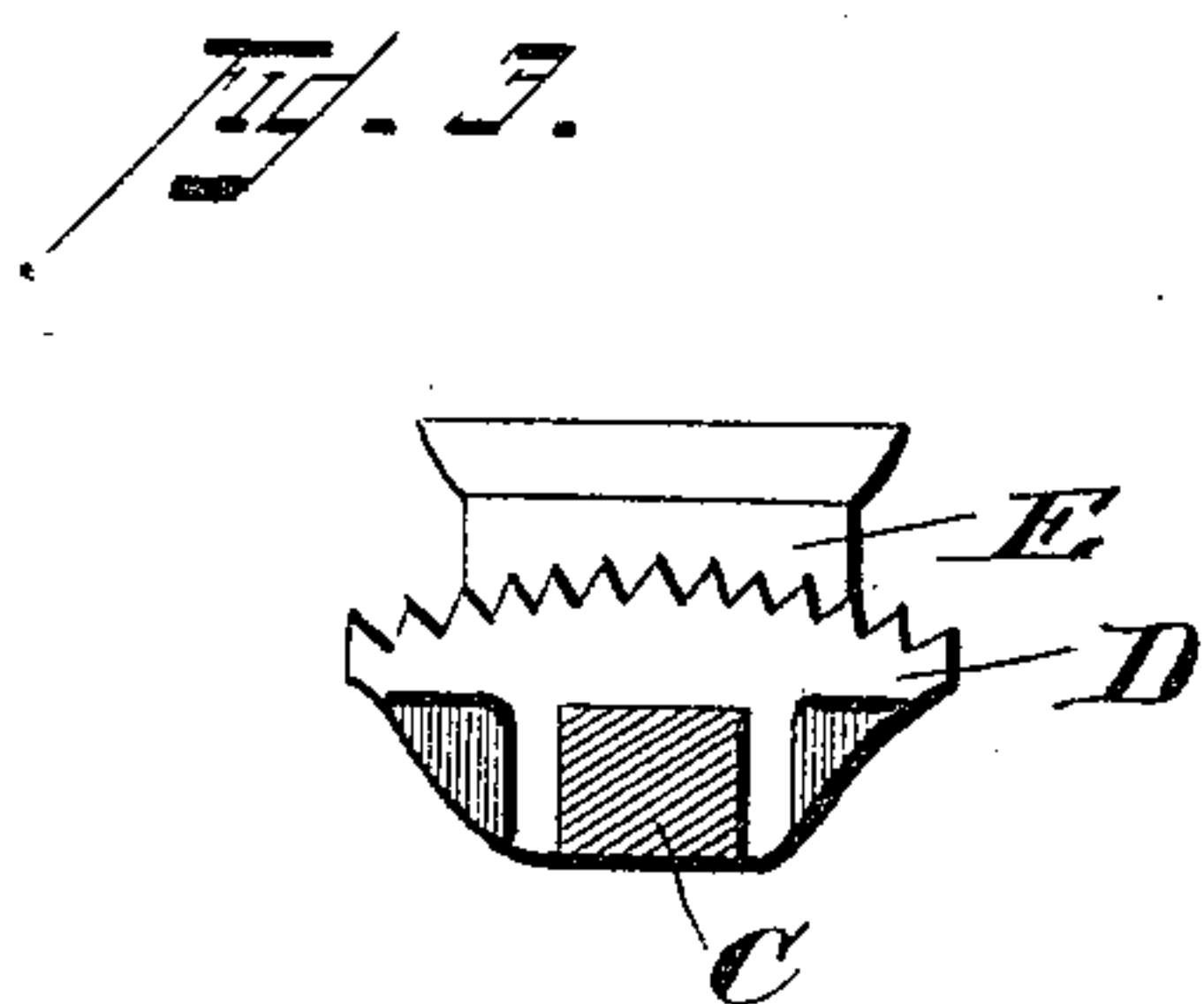
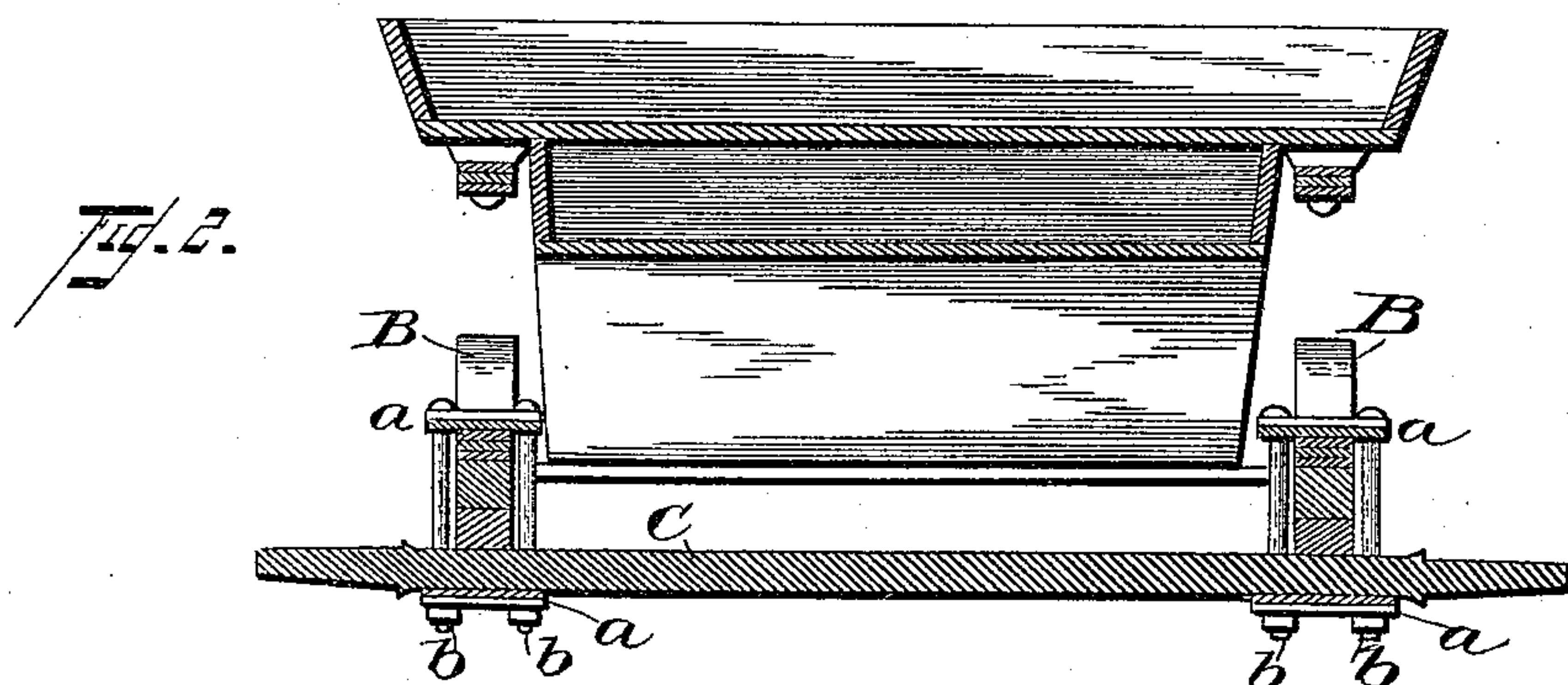
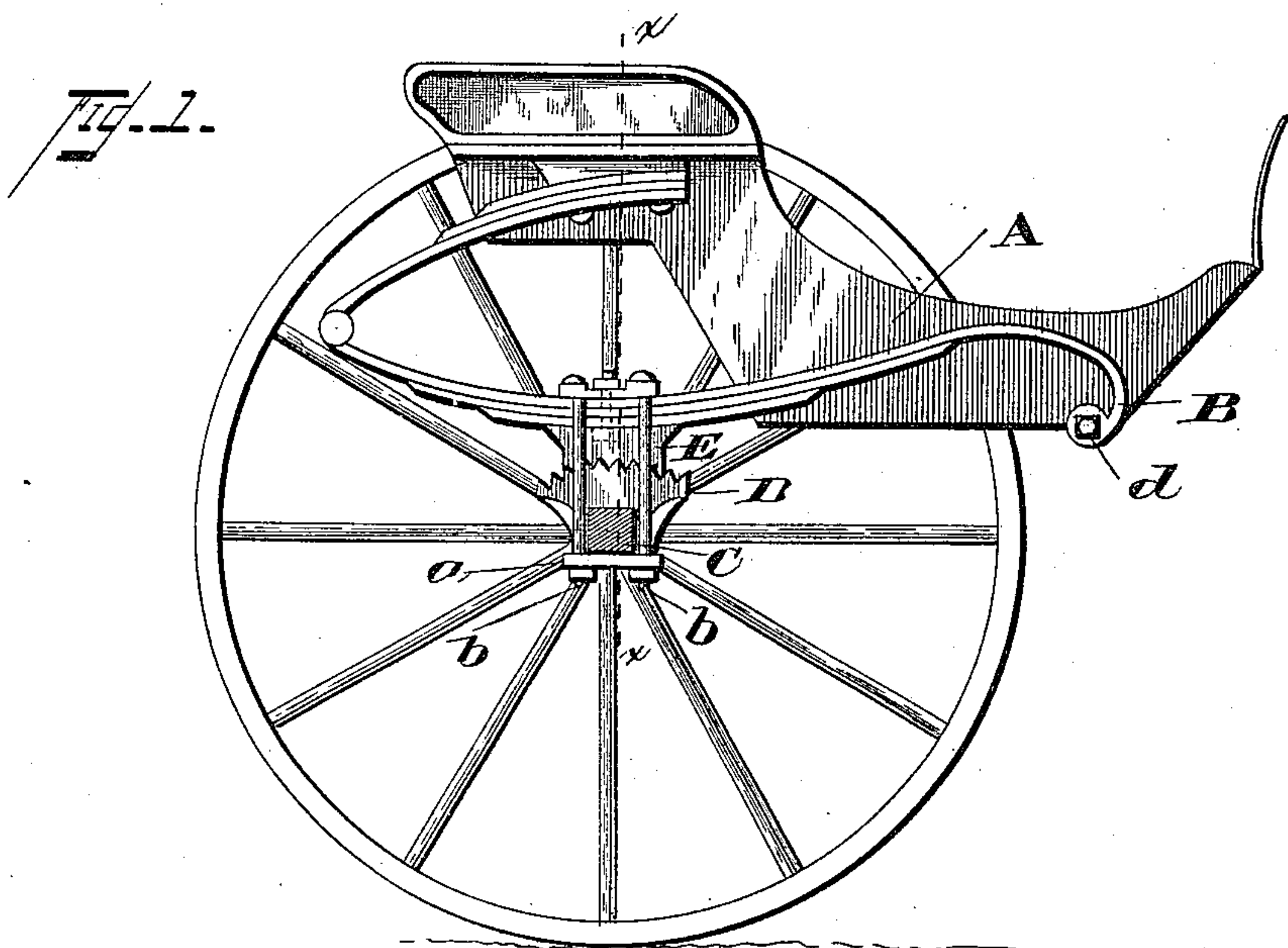


(No Model.)

T. S. WATROUS.  
ROAD CART.

No. 441,345.

Patented Nov. 25, 1890.



WITNESSES:  
*L. L. Curand*  
*H. C. Smith.*

INVENTOR  
*Thomas S. Watrous.*  
BY *Wm. Johnson & Co.*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

THOMAS S. WATROUS, OF PENN YAN, NEW YORK.

## ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 441,345, dated November 25, 1890.

Application filed June 21, 1890. Serial No. 356,296. (No model.)

### *To all whom it may concern:*

Be it known that I, THOMAS S. WATROUS, a citizen of the United States, residing at Penn Yan, in the county of Yates and State of New York, have invented certain new and useful Improvements in Road-Carts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in road-carts.

The object of my invention is to provide for the adjustment of the body of the cart upon the axle to adapt it to the varying heights of horses and to obtain the desired equilibrium in relation thereto in conjunction with an easy riding motion.

My invention consists, briefly, in a pair of segmental blocks or castings interposed between the carrying-springs and axle of the cart, said segmental castings having corresponding corrugations or teeth upon their curved surfaces, which fit into each other, and which when bolted together lock the two pieces in a solid manner, and, further, in an improved form of spring attachment to the body of the cart, as will be more fully hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of so much of the cart as is necessary to illustrate my invention. Fig. 2 is a cross-section of the same, taken on line *xx*, Fig. 1. Fig. 3 is an enlarged side view of the segmental toothed adjustment-castings. Fig. 4 is a detached view of one of the carrying-springs, showing the manner of its attachment to the bar underneath the body of the cart.

In the drawings, A indicates the body of my improved road - cart; B, the carrying-springs; C, the axle; D, the adjustment-casting resting upon the axle, and E the adjustment-casting upon which the springs rest.

*d* is a straight bar secured to the under side of the body of the cart, and to which the carrying-springs B are pivoted. *aa* are the grip-

plates, and *bb* the bolts for securing the parts together.

It will be seen that the practical operation in making the adjustment will be as follows: When the body of the cart is put into position upon the axle, if the front end is found to be too high the adjustment - castings may be separated by unscrewing the grip-bolts and the upper casting moved forward one or more teeth, as may be found necessary. Should the reverse be the case, the block must be moved backward. The adjustment-blocks are metal castings of sufficient strength to give a light and neat appearance, and are secured together and to the axle and springs by means of the grip-plates and bolts in a substantial manner, the arrangement being well adapted for the purpose intended.

The carrying - springs B are peculiarly adapted for road-carts, the lower half having a long end, which terminates in a well-rounded goose-neck, the ends of which are journaled to a straight bar attached to the under side of the cart-body, thus forming a direct connection and avoiding the rattle incident to the use of suspension-links and assists in producing a firm and easy-riding motion.

Having described my invention, I claim—

1. In a road-cart, the combination of the segmental adjustment blocks or castings D and E, the axle C, and the carrying-springs B, journaled upon the ends of the straight bar *d*, as and for the purpose specified.

2. In a road-cart, the combination of the body A, the straight bar *d*, the ends of which are journaled through the springs B, the axle C, the springs B, the segmental adjustment-blocks D and E, the grip-plates *a a*, and bolts *b b*, as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS S. WATROUS.

Witnesses:

A. C. HARWICK,  
S. W. SMITH.