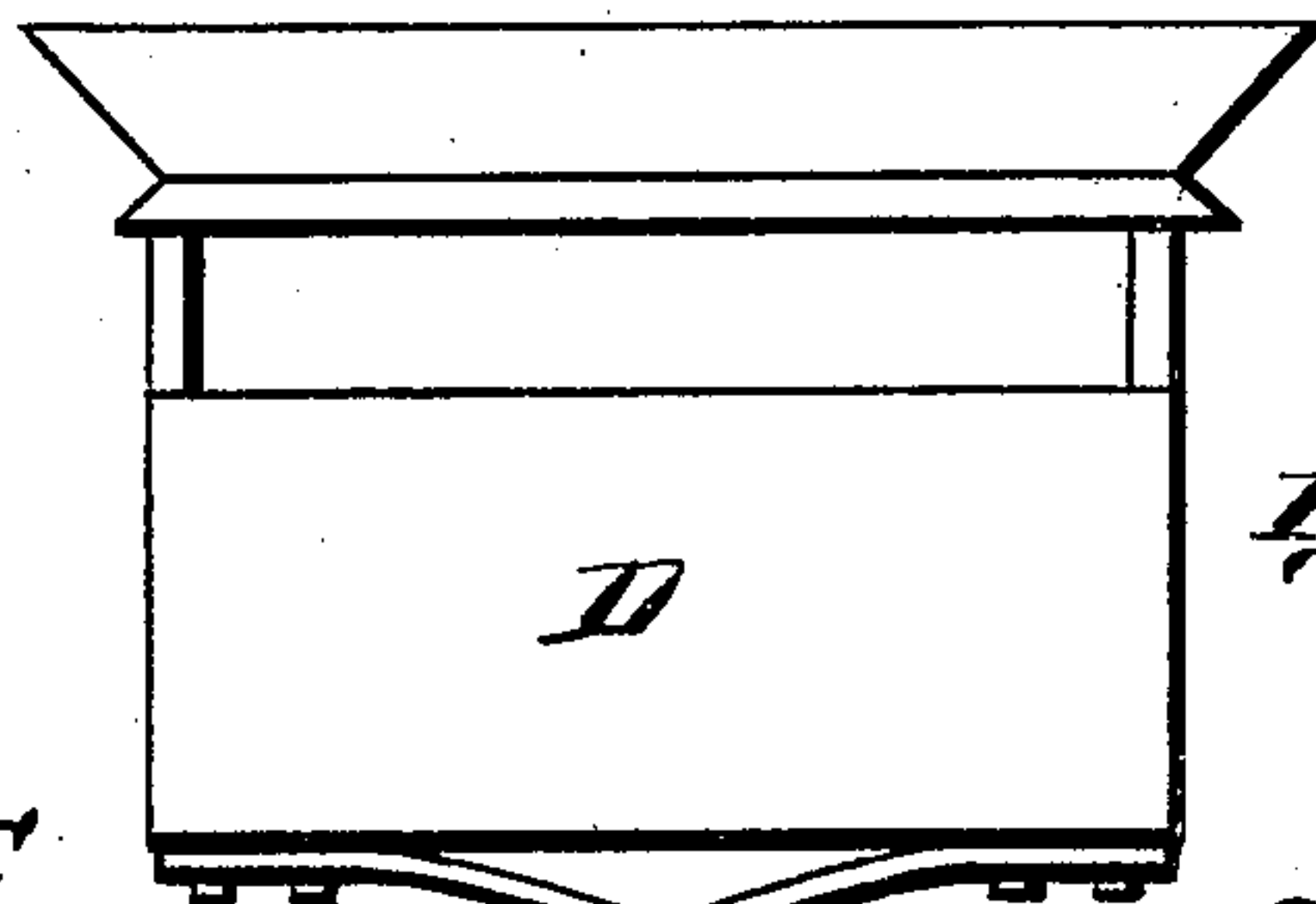
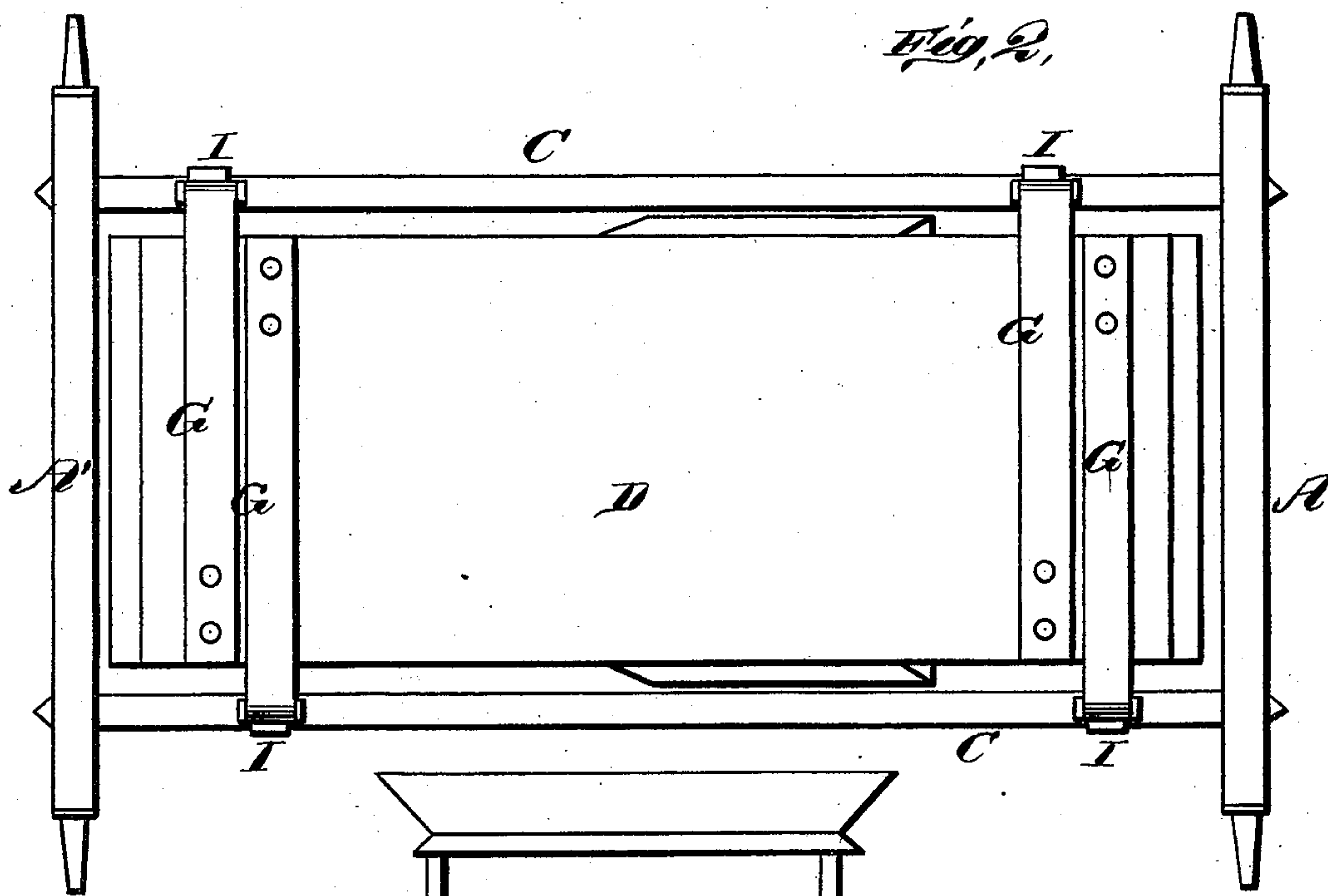
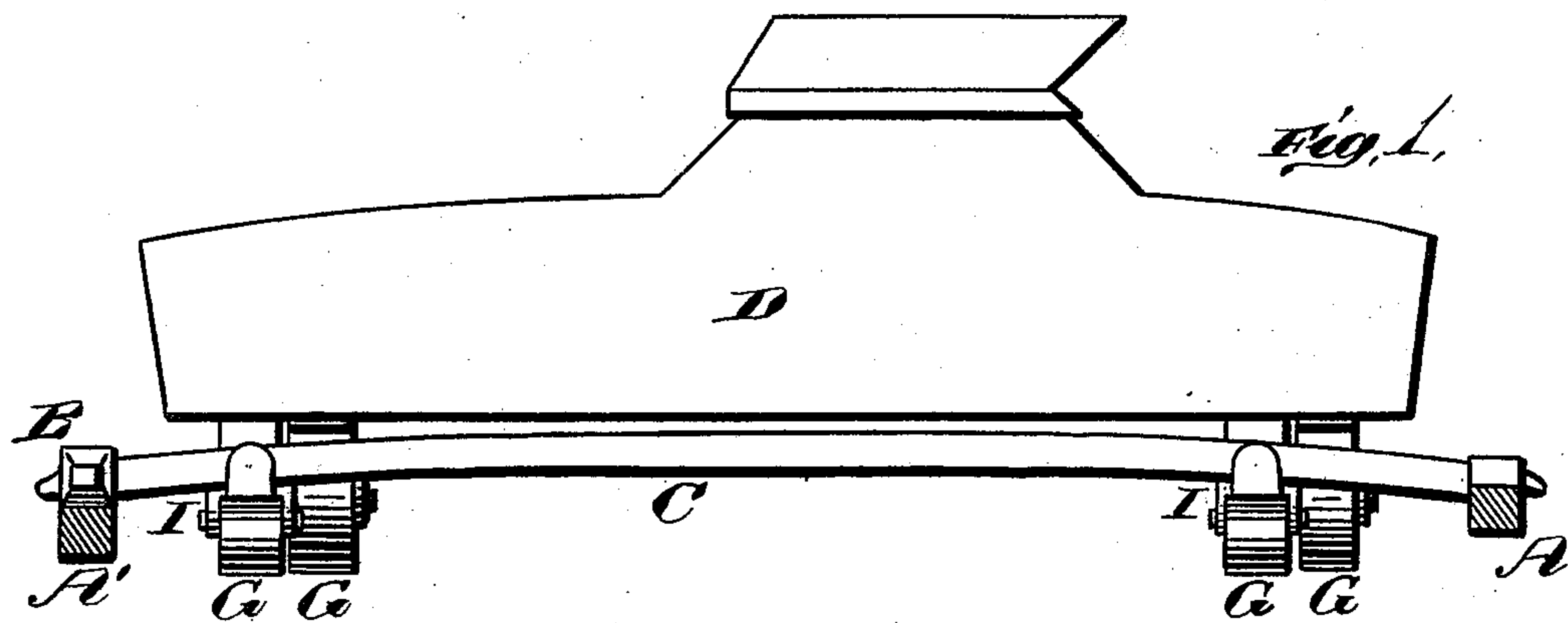


H. TIMKEN.
Carriage-Spring.

No. 197,689.

Patented Nov. 27, 1877.



WITNESSES

H. Bates
George E. Upham

INVENTOR.

Henry Timken.

Gilmore, Smith & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY TIMKEN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. **197,689**, dated November 27, 1877; application filed October 27, 1877.

To all whom it may concern:

Be it known that I, HENRY TIMKEN, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and valuable Improvement in Wagon-Springs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of a wagon-body with my wagon-spring attached. Fig. 2 is a bottom view of a wagon, showing my wagon-spring; and Fig. 3 is a sectional end view thereof.

My invention relates to buggy and wagon springs; and it consists in the attachment of springs to the bottom of the body at the sides, and crossing the bottom of the body, and connecting with the side bars on the opposite sides of the body, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the hind axle, and A' the front axle, the latter having the usual head-block B. The hind axle A and head-block B are connected by side bars C C, in the usual manner. D represents the body of the vehicle.

The body D is connected to the side bars C C by means of two springs, G G, composed of one or more plates near each end. These springs are fastened to the under side of the body D at opposite sides. The springs then cross each other, and their ends are pivoted or hinged in clips I I, fastened to the opposite side bars, as shown.

By this construction and arrangement of the springs I secure length of springs and elasticity of motion, and at the same time hanging the body low.

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

In combination with the side bars C C and body D, the springs G G, attached to the under side of the body at opposite sides, then crossing each other, and connected to the side bars on opposite sides, substantially as herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY TIMKEN.

Witnesses:

M. JACOBS,
PETER BOWE.