

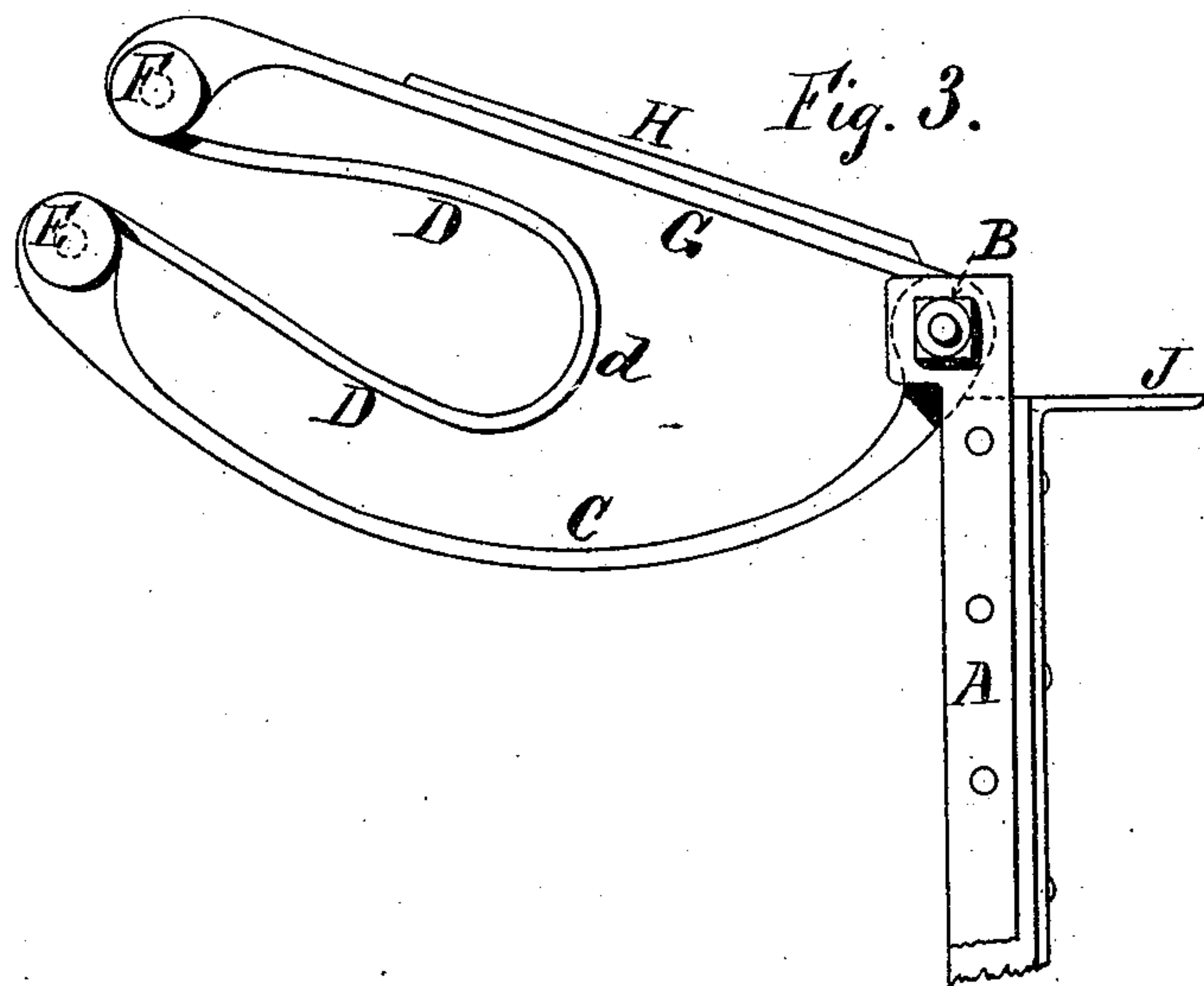
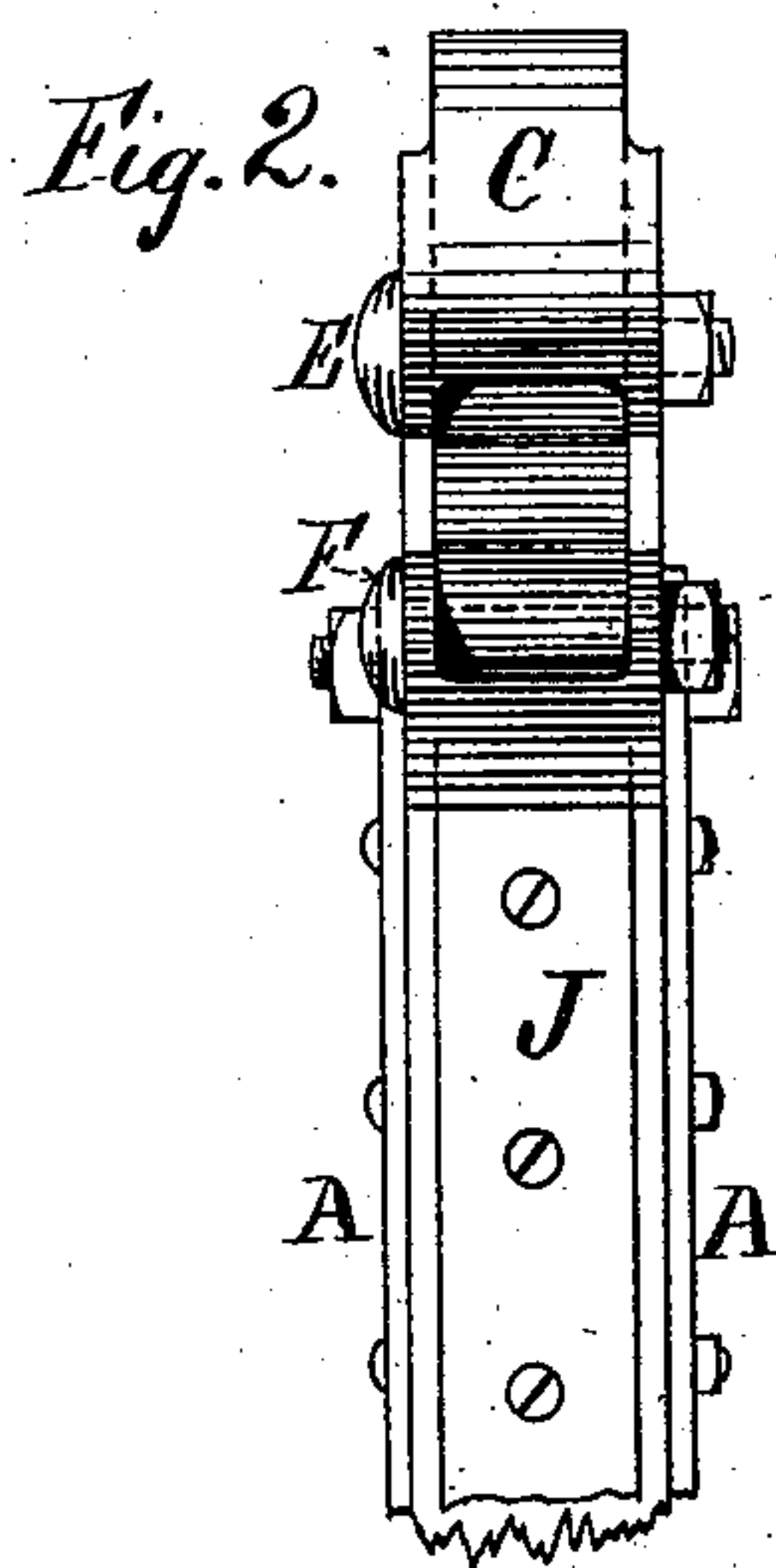
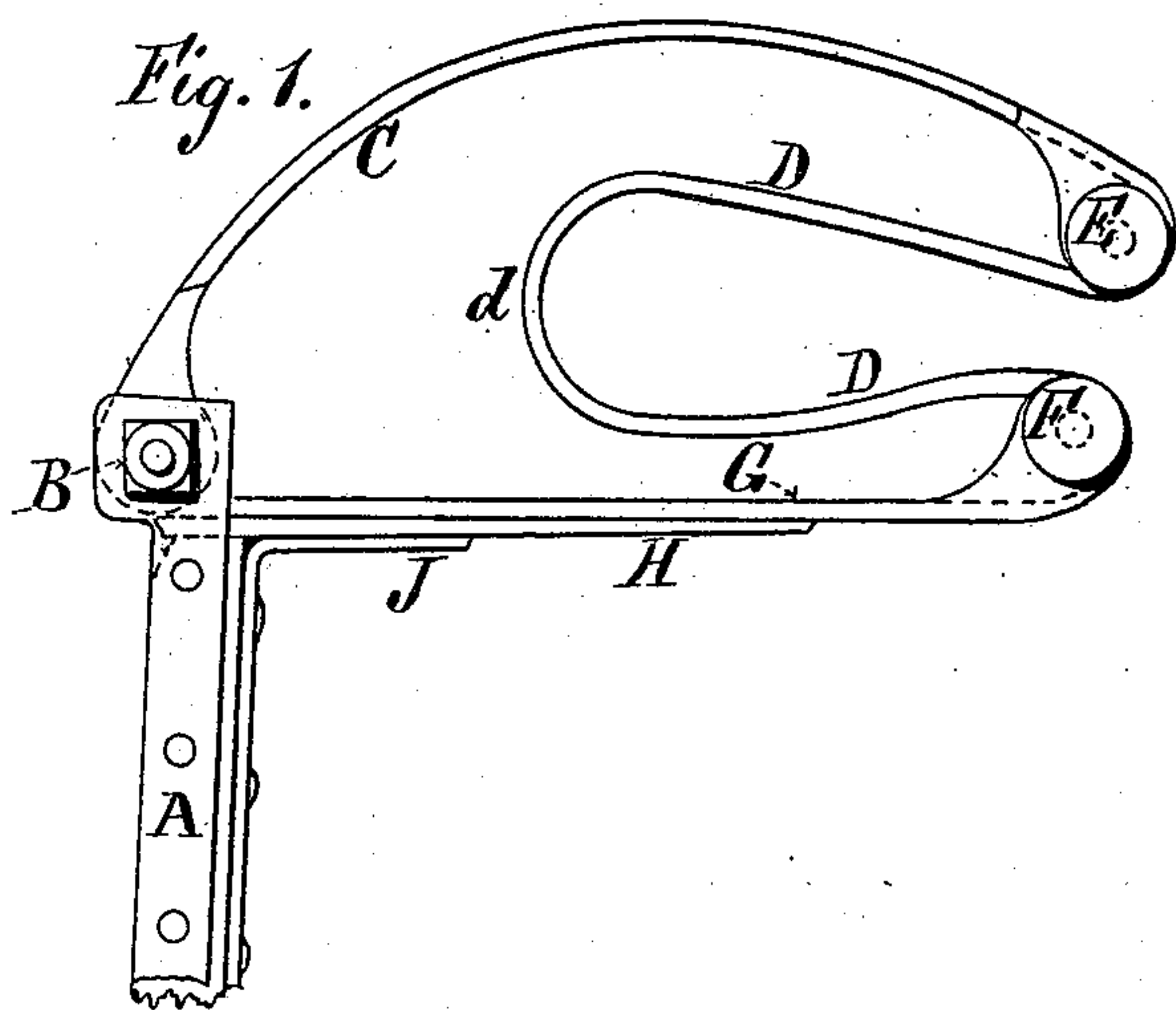
(No Model.)

E. R. MERRILL.

Vehicle Seat Spring.

No. 229,899.

Patented July 13, 1880.



Witnesses:  
Jacob H. Forsberg  
Louise Ward

Inventor:  
Edward R. Merrill.

# UNITED STATES PATENT OFFICE.

EDWARD R. MERRILL, OF NEW YORK, N. Y.

## VEHICLE-SEAT SPRING.

SPECIFICATION forming part of Letters Patent No. 229,899, dated July 13, 1880.

Application filed March 3, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD R. MERRILL, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Vehicle-Springs; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved spring; Fig. 2, an end elevation of the same, and Fig. 3 a side elevation of the same turned over or reversed on its center of motion.

Similar letters of reference indicate like parts in the several figures.

My invention relates, principally, to the formation of a spring for that class of vehicles the seat of which is made to be reversed or turned over out of the way while loading or unloading; and my invention consists in the combination of a bearing or bow spring, a buckled or U-shaped spring, and a plate or stringer connected together, and a bracket to relieve any undue pressure or strain upon the swinging center or centers on which the spring swings or rotates, the whole being constructed, connected, and operating in manner herein-after fully described.

In the accompanying drawings, A represents a strap or bearing attached to the post or upright (termed the "monitor") at one side of a truck or cart, and to the upper end of this strap, at the point B, the seat-spring is suitably secured, so as to admit of its being swung or turned over and back.

C represents a bow-spring, to which the seat is to be attached in any suitable manner.

D represents a buckled spring of U shape, or nearly so, attached to and hinging with the bow-spring C at the point E.

G is a plate or stringer, to which, at the point or center F, the buckled or U-shaped spring is attached and vibrates.

H represents an additional leaf, attached to and forming part of the plate or stringer G. J represents a bracket, forming at its horizontal portion an additional strengthening-piece or leaf to the stringer G, the vertical portion of said bracket being attached to the post or monitor of the truck or cart; and *d* represents the inner or return portion of the buckled or U-shaped spring D.

Of course, another spring, similarly con-

structed and connected, is to be attached to the other post or monitor at the opposite side of the truck or cart.

The operation of my improved spring is as follows: The seat is attached to or connected with the bow-spring C, and as pressure is exerted upon the bow-spring it is transferred at E to the buckled or U-shaped spring D. The portion E, on account of the pressure upon the bow-spring C, moving backward and forward, pulls upon the upper portion of the buckled or U-shaped spring D and swings it on the portion F, thus lifting and lowering the inner or return part, *d*, and thereby transferring the strain along and through the whole spring, from the swinging center, at B, up through the bow-spring C, around and back through the upper stretch of the buckled or U-shaped spring D, around the return part *d*, and along the lower stretch, at F, to the plate or stringer G, where it is taken up by the bracket J.

It will be obvious that the bow-spring, buckled or U-shaped spring, and plate or stringer may be continuous, or made in one length and bent into suitable shape, instead of being made separate and jointed together, as herein shown and described; and it will also be obvious that the spring (one or more) may be attached at B to the body or to posts or uprights placed or attached at any part of the body of vehicles, as occasion may require.

I am aware that the seats of trucks and other like vehicles have heretofore been constructed so as to admit of being turned over out of the way while loading or unloading, and that such seats have been provided with springs of various constructions, and therefore do not wish to be understood as claiming herein broadly as my invention a turn-over seat-spring for vehicles.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

A vehicle-seat spring consisting of a bearing or bow spring, C, buckled or U-shaped spring D, plate or stringer G, and bracket J, the whole being constructed, connected, and operating substantially as and for the purpose described.

EDWARD R. MERRILL.

Witnesses:

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