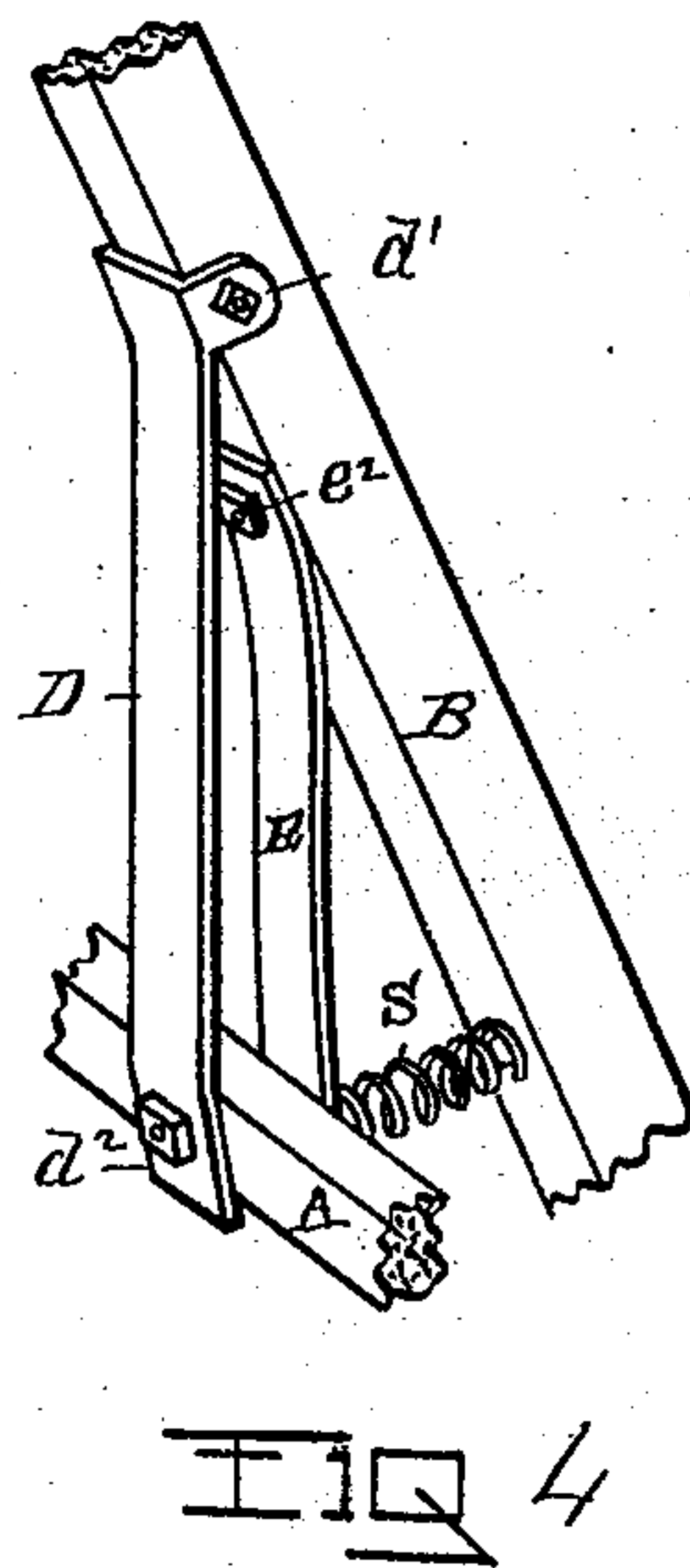
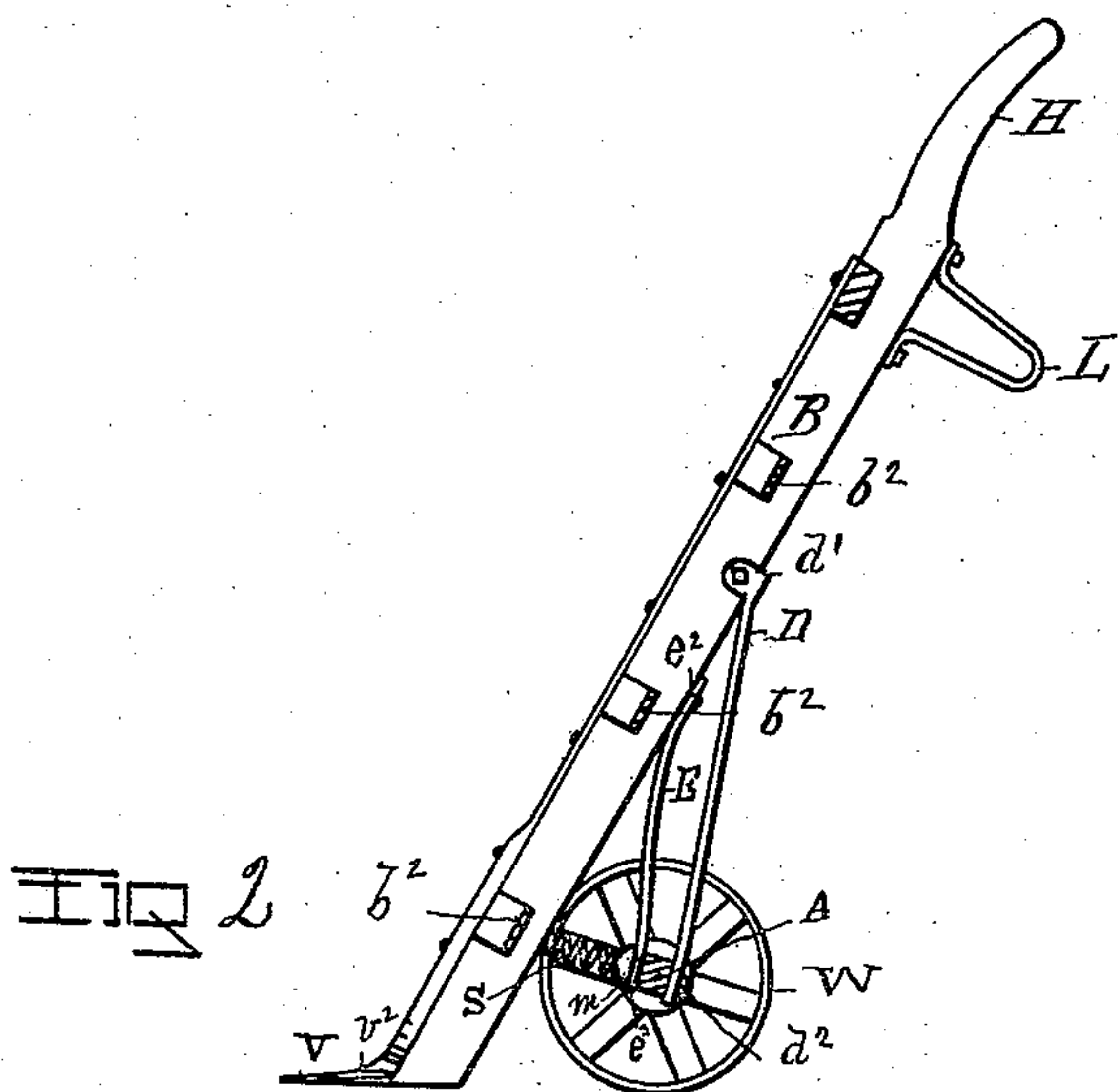
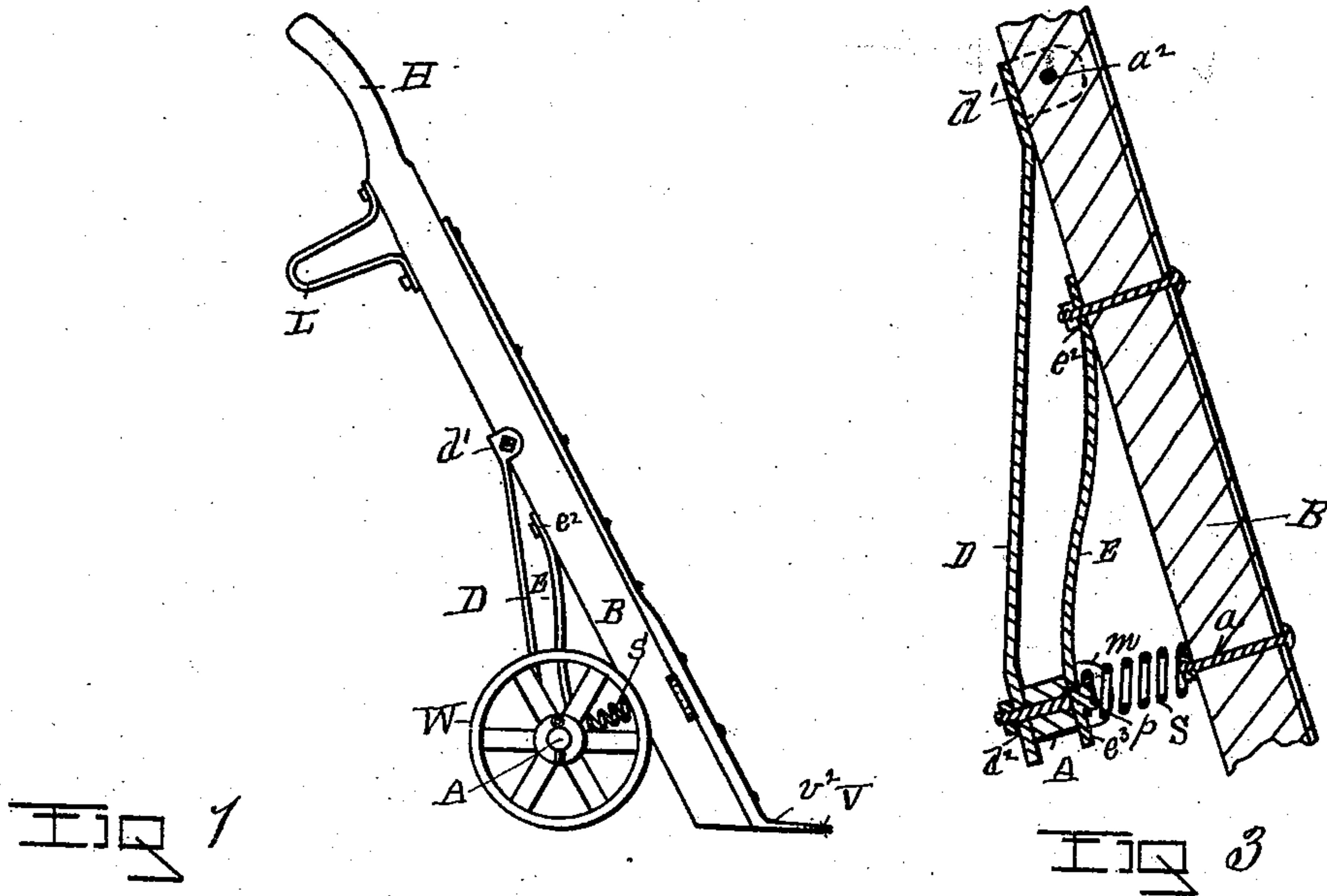


(No Model.)

C. G. CURTIS.
HAND TRUCK.

No. 501,706.

Patented July 18, 1893.



WITNESSES

Charles S. Brintnall
William A. Sweet

INVENTOR

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atty

UNITED STATES PATENT OFFICE.

CHARLES G. CURTIS, OF TROY, NEW YORK, ASSIGNOR OF ONE-HALF TO
GEORGE W. HORTON, OF SAME PLACE.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 501,706, dated July 18, 1893.

Application filed December 19, 1892. Serial No. 455,612. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. CURTIS, of the city of Troy, county of Rensselaer, and State of New York, have invented new and useful Improvements in Trucks for Handling Freight or Baggage, of which the following is a specification.

My invention relates to improvements upon that class of hand-trucks which are used in handling baggage or in moving freight for the loading or unloading of vessels; and my improvements have for their object the better adaptation of this class of apparatus to the uses for which they are designed, by combining with the truck-body a spring, and spring-bar that are arranged between the truck-body and the axle at each side of the latter and by which the jar occasioned by the wheels when passing over the end of the gang-way plank or running from off the latter, or when running over other obstructions may be laterally as well as vertically taken up by the springs and spring-bar so as to make the jar less severe upon the hands of the person operating the truck, and less injurious to the articles being moved; I am aware of the fact that it is not new broadly considered to combine a spring or springs with a wheel-barrow, and that my invention must relate to an improved method of constructing and arranging them to perform the desired functions.

Accompanying this specification to form a part of it there is a plate of drawings containing four figures illustrating my invention as applied to a hand-truck, with the same designation of its parts by letter reference used in all of them.

Of the illustrations Figure 1, is a side elevation of a hand-truck containing my invention both sides of which are alike. Fig. 2 is a section taken centrally from end to end through the axle and cross-bars or slats. Fig. 3, is a section taken centrally through one of the side-beams, the bottom brace-bar; the axle, the spring-bar above the axle, one of the springs, with the ends of the side-beams shown as broken off. Fig. 4, is a perspective of the same parts that are shown at Fig. 3.

The several parts of the hand-truck thus

illustrated are designated by letter reference and the function of the parts is described as follows:

The letters B, designate the side-beams of which there is one at each side of the truck.

The letters b^2 , designate the cross-bars or slats arranged between the beams.

The letters H, designate the handles by which the truck is operated, and they are each formed on one of the rear ends of each of the side beams.

The letters L, designate the legs of which there is one for each of the side-beams.

The letter V, designates the head of the truck which is made with a wedge-form v^2 .

The letter A, designates the axle, and W, the wheels, all of which parts are of the usual or ordinary construction.

The letters D, designate a brace-bar of which there is one at each side of the truck, with each of them connecting at its rear end d' , with the under side of one of the side-beams and at its other end d^2 , connecting with the under side of the axle A inside of the wheels.

The letter E, designates a spring-bar of which there is one at each side of the truck, and each of which at its rear end e^2 , connects with the under side of one of the side-beams, and therefrom is made to curve downwardly and frontwardly with its front end resting on the top of the axle, and free to adjust thereon.

The letter p , designates a projection of circular form constructed on the front end e^3 of each of the spring-bars and m , ears formed on the sides of each of the spring-bars where resting upon the axle.

The letters S, designate spiral springs of which there is one arranged beneath the outer end of each of the side-beams with the upper end of each of these springs connected to the under side of the beam thereat, with the lower end of each of the springs encircling the projection p , and between the side ears m of each of the spring-bars. The projection p , and the ears m act to keep the free lower end of each of the springs in position, and cause it to act in connection with the spring-bar.

The letters a , designate a bolt by which the upper end of each of the springs is connected

to one of the side beams, and a^2 , bolts by which the ends of the brace-bars are connected to the axle.

As the springs S, and spring-bars E, are thus constructed and arranged the truck-body is made adjustable laterally as well as vertically thereon, and the difficulties attending the handling of articles consequent upon the passage of the truck over the ends of gang-planks and other uneven surfaces is avoided.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a truck made with side-beams connected by cross-bars or slats, and having an axle connected with said side beams by brace-bars— of a spring at its upper end connected with the front end of each of said side-beams, and a spring-bar connect-

ed at its rear end with one of each of said side-beams, and at its front end constructed for the adjustment thereon of the lower end of one of said springs, substantially in the manner as and for the purposes set forth.

2. In a hand-truck the combination with the side-beams B, B, of the axle A, the brace-bars D, D, the springs S, S, and the spring-bars E, E, constructed and arranged to operate substantially in the manner as and for the purposes set forth.

Signed at the city of Troy, New York, this 2d day of July, 1892, and in the presence of the two witnesses whose names are hereto written.

CHARLES G. CURTIS.

Witnesses:

W. E. HAGAN,

CHARLES S. BRINTNALL.