

EDWARD WELLS.

Improvement in Folding-Steps for Carriages.

No. 115,665.

fig. 1.

Patented June 6, 1871.

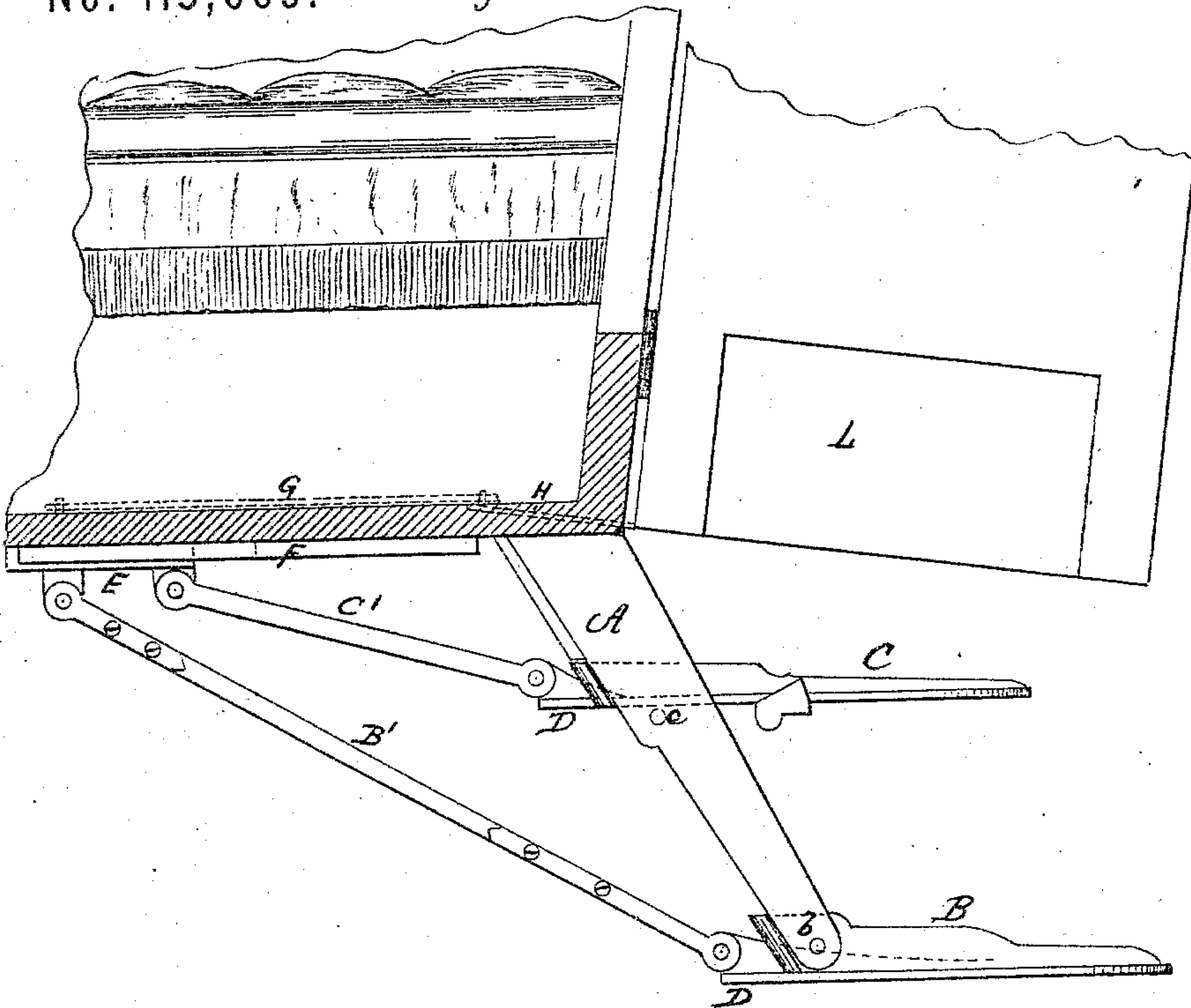


fig. 2.

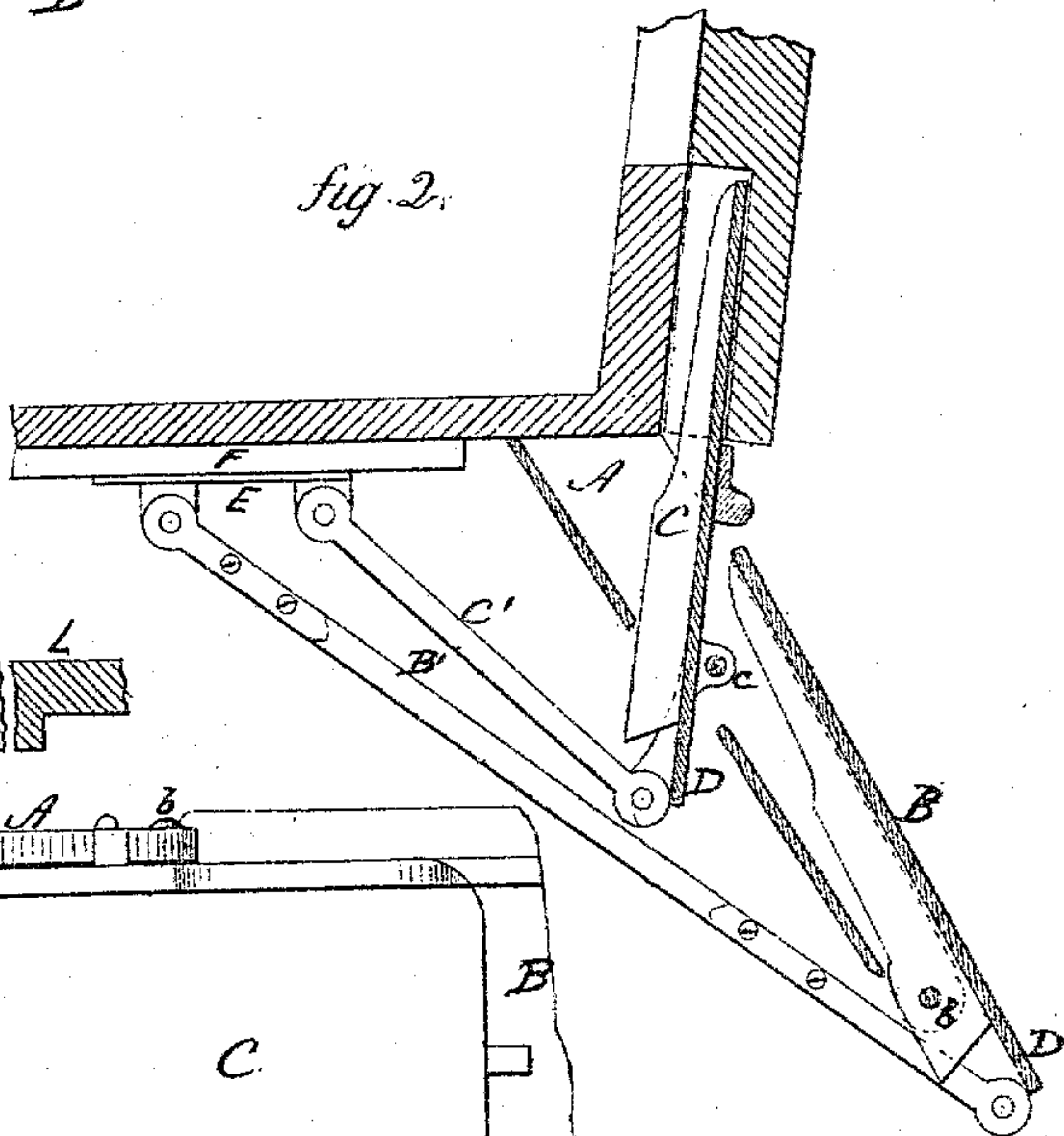
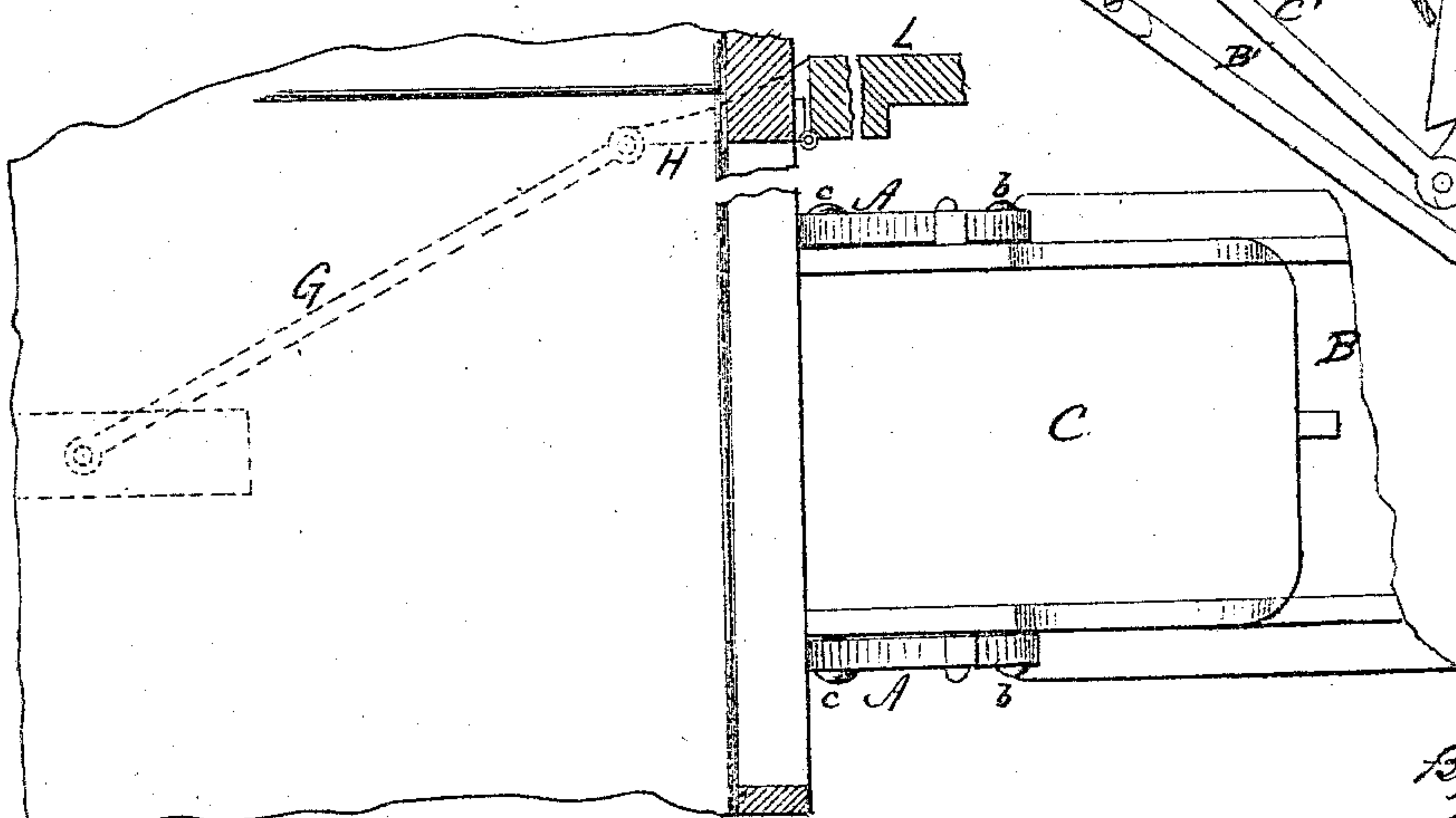


fig. 3.



Witnesses

John H. Shumway
A. J. Tibbitts

Edward Wells
Inventor
By his Attorney

John E. Earle

UNITED STATES PATENT OFFICE.

EDWARD WELLS, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN FOLDING-STEPS FOR CARRIAGES.

Specification forming part of Letters Patent No. 115,665, dated June 6, 1871.

To all whom it may concern:

Be it known that I, EDWARD WELLS, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Folding-Step for Carriages; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents, in—

Figure 1, a section of the carriage with the steps open; Fig. 2, the same, the steps closed; and in Fig. 3, the steps open.

This invention relates to an improvement in steps for carriages in which two steps are required, the object being to automatically close the steps by the opening and closing of the door. Heretofore steps of this class have been constructed where the simultaneous folding of the two steps was caused by the connecting-rod extending from the arm of one step to the arm of the other, which required a very nice adjustment in order that the two steps may rest upon their respective bearings, which nicety of adjustment is avoided in my invention; and it consists in the arrangement of the two steps in a frame fixed to the carriage, the said steps pivoted in the frame independent of each other, combined with a slide arranged to move transversely beneath the carriage, a connecting-rod extending from each of the said steps to the slide, so that by the movement of the said slide the two steps are simultaneously operated.

A is the frame, into which the lower step B

and the upper step C are respectively pivoted at *b c*. Each of the said steps is extended through the frame, and provided with an arm, D, and to the arm of the lower step a connecting-rod, B', is attached, and to the upper step a connecting-rod, C', extending to a slide, E, working in suitable guides F, arranged transversely across underneath the carriage. From the slide E a rod, G, denoted in broken lines, Fig. 3, extends to an arm, H, on the door L, so that by opening the door the slide is thrown back, and by closing the door the slide is drawn forward. In Fig. 2 the door is in a closed position, and by opening the door from that position the slide E is thrown back, drawing up the arms D of the step, consequently throwing down the steps, as in Fig. 1; and when down to a level position, they are stopped and held by any suitable device; and when the door is again closed the slide is drawn forward; the connecting-rods, operating upon their respective steps, turn them up, as in Fig. 2, here represented, the upper step extending up to a recess formed in the door; but where the frame is of sufficient length both steps may close into the frame.

I claim as my invention—

In combination with the two steps B C, pivoted in the frame A, and provided with arms D, the transverse slide E, and the two rods B' and C', independently connecting the two rods to the said slide, substantially as set forth.

EDWARD WELLS.

Witnesses:

A. J. TIBBITS,
JOHN H. SHUMWAY.