

(No Model.)

E. G. & G. RAUCH & W. J. KELLY.  
DEVICE FOR OPERATING VEHICLE TOPS.

No. 489,756.

Patented Jan. 10, 1893.

Fig. 1,

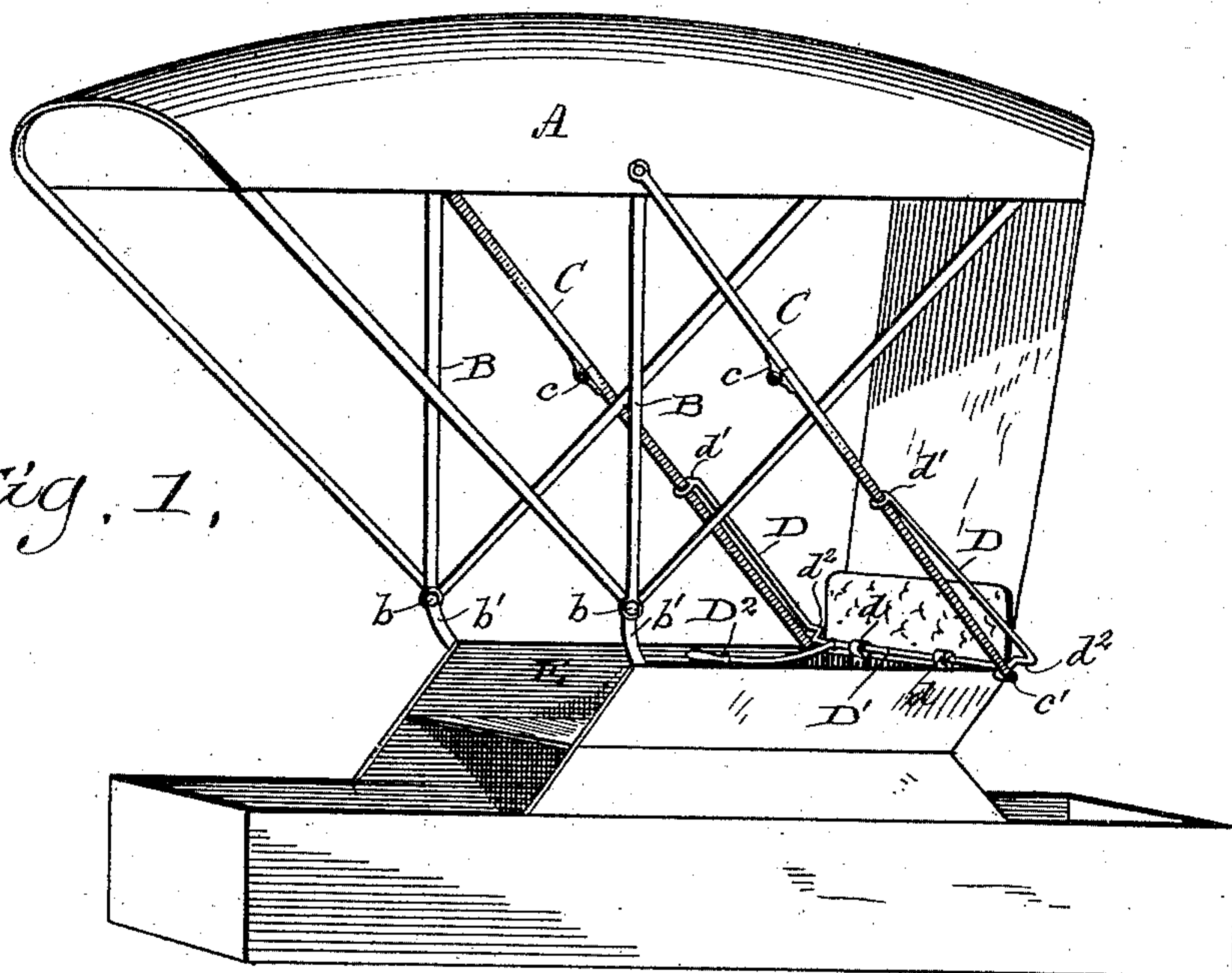


Fig. 2,

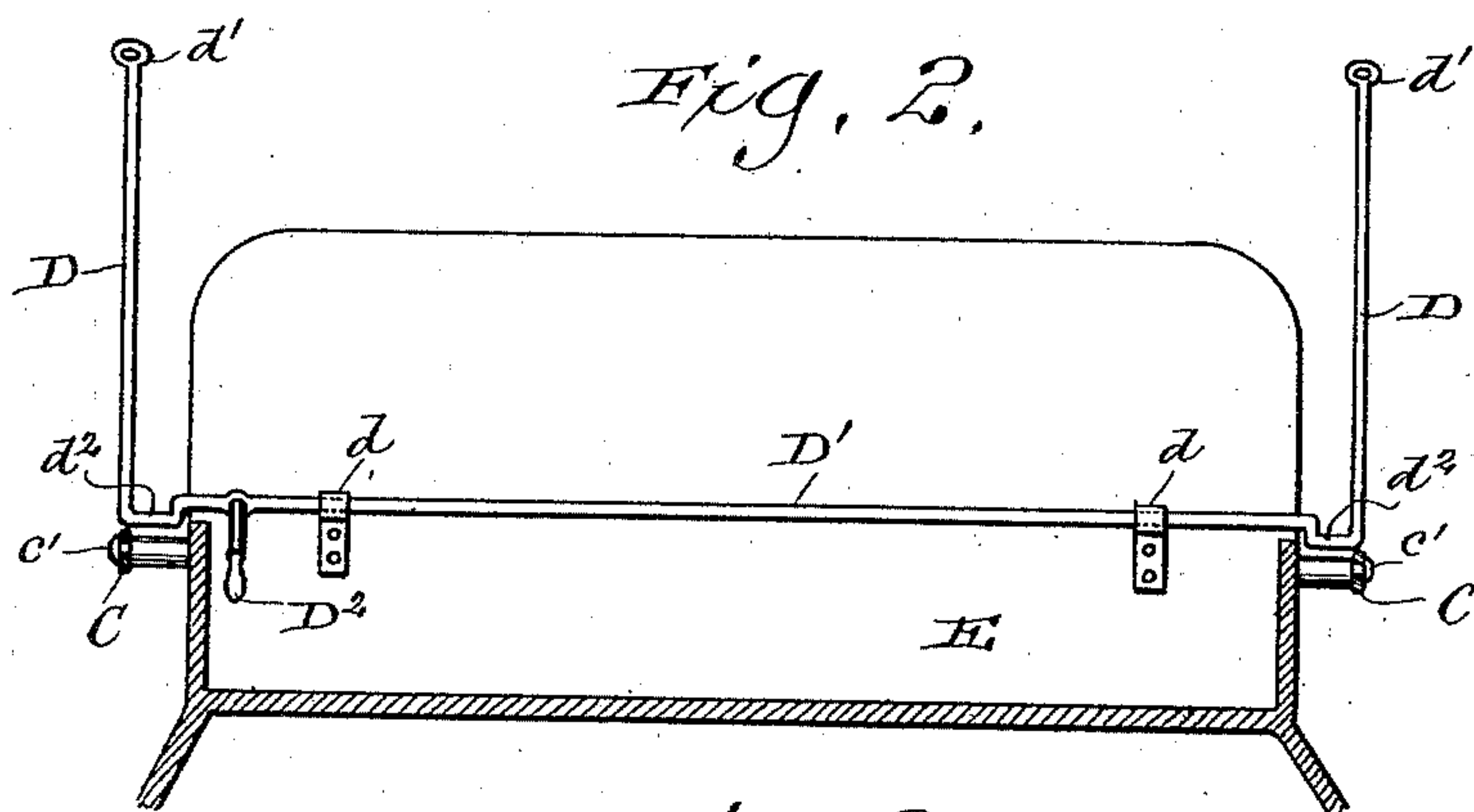
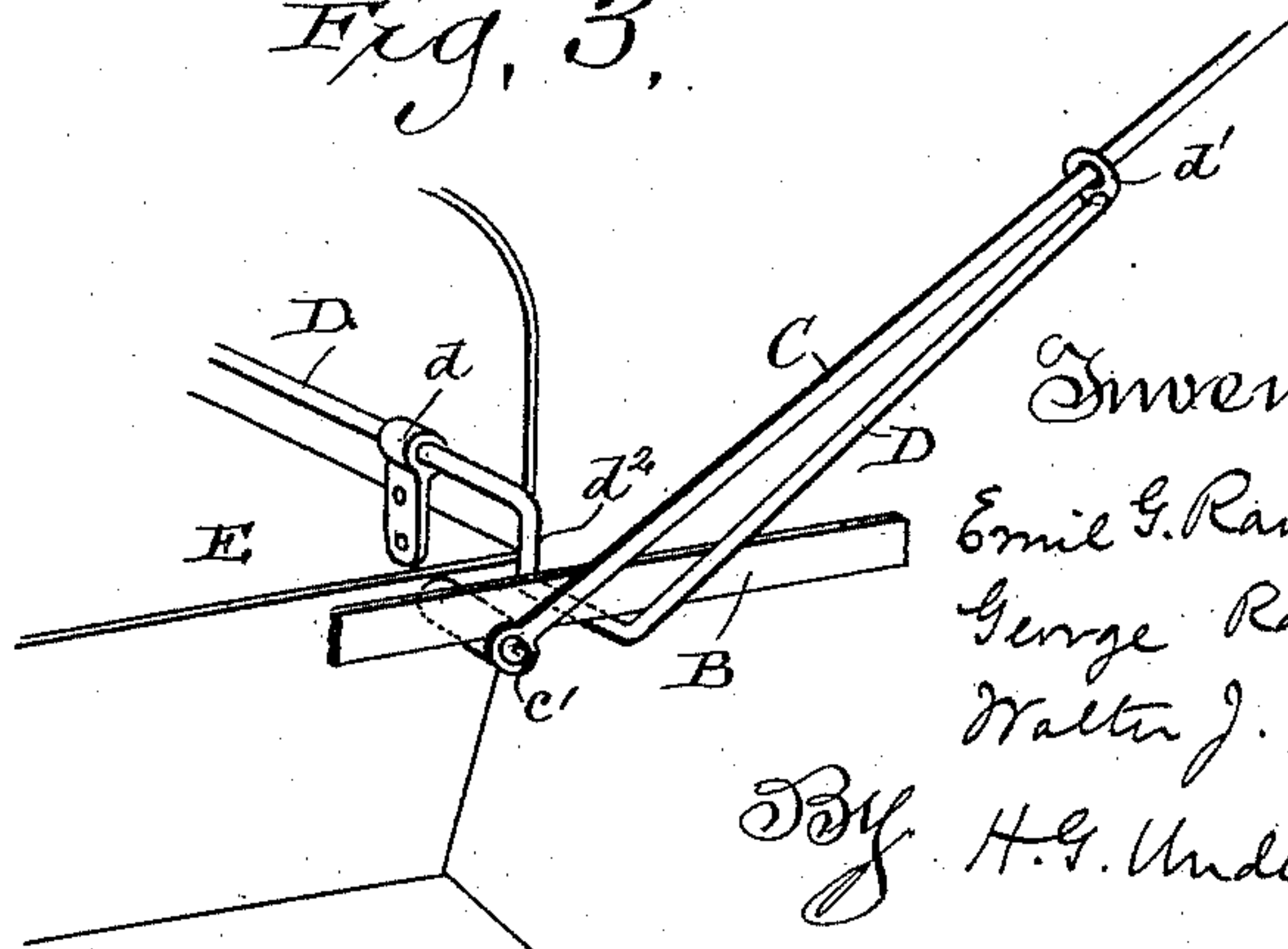


Fig. 3,



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR OPERATING VEHICLE-TOPS.

SPECIFICATION forming part of Letters Patent No. 489,756, dated January 10, 1893.

Application filed July 18, 1892. Serial No. 440,362. (No model.)

*To all whom it may concern:*

Be it known that we, EMIL G. RAUCH, GEORGE RAUCH, and WALTER J. KELLY, all citizens of the United States, and residents of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Devices for Operating Vehicle-Tops; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to new and useful improvements in devices for operating vehicle tops, and said invention consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings illustrating our invention:—Figure 1. is a perspective view of a buggy provided with our improved top operating device. Fig. 2. is a vertical cross section of the buggy body illustrating the manner of securing the top operating device thereto. Fig. 3. is an enlarged perspective view of a portion of the device, illustrating the positions of the several parts when the top is lowered.

In said drawings:—A represents the buggy top, supported upon the usual bows B B, which are pivotally connected together at their lower ends as at *b b*, and pivotally supported upon suitable supporting irons *b' b'*, at the sides of the buggy body.

C C represent the usual braces which engage at their upper ends with the top A or with the bows B, in the usual manner, said braces being jointed or hinged as at *c c*, and pivotally engaged at their lower ends with laterally extending posts or supports *c' c'*.

Levers D D are secured to opposite ends of a transverse shaft or rod D' which is revolvably supported in suitable bearings *d d* upon the buggy body. Eyes *d' d'* are formed in the free ends of the levers D D, which eyes are arranged to engage with the lower portions of the braces C C below the joints *c c*, as shown more particularly in Figs. 1 and 3, and a handle or lever D<sup>2</sup> is secured to the shaft D' in such a manner as to occupy a substantially horizontal position when the parts are in the relative positions illustrated in Fig. 1. It follows from this construction, that an upward pull upon the handle D<sup>2</sup> will rotate

the shaft D' and the levers D D toward the rear, thus causing the levers D D to exert a backward pressure upon the braces C C, so as "break" the braces at the joints *c c*, and lower the top in an obvious manner, until the parts assume the relative positions illustrated in Fig. 3., and the rear one of the bows B B at each side of the vehicle, rests upon the lateral post or support *c'*. Similarly, when the post is down, a movement of the lever D<sup>2</sup> in a direction opposite to that just described, will operate to lift the levers D D and the braces C C, from the positions shown in Fig. 3. so as to rotate the bows B B about their pivotal supports *b b* and back into the position shown in Fig. 1. of the drawings. This operation will obviously serve to raise the top, and to bring the braces into the proper positions to sustain the top in its raised position.

As shown in the drawings, we find it convenient to arrange the transverse shaft D' above the seat frame E, at any desired point, as upon the upper edge of the back of the seat, but the location of the transverse shaft is immaterial so far as our invention is concerned, it being however desirable to arrange said shaft so as to cause its ends to project beyond the sides of the vehicle body adjacent to the pivotal connections between the lower ends of the braces C C and the supports *c' c'*. We furthermore prefer to shape each of the projecting ends of the rock shaft D' with a lateral bend, as shown at *d<sup>2</sup> d<sup>2</sup>*, this bent portion being so arranged as to drop down out of the way of the bows when the shaft is rotated to lower the top, so as to permit the rear bows to rest upon the lateral posts *c' c'* at opposite sides of the vehicle.

As illustrated in the drawings, the shaft D' and the levers D D located at its opposite ends, may be made from a single piece or rod of metal bent into the desired shape, although, of course, this feature of construction is entirely immaterial.

The handle D<sup>2</sup> may be secured to the transverse rod or shaft D at any desired or convenient point, but in practice, we find it desirable to arrange said handle so as to lie adjacent to one end of the seat as shown, so as not to be in the way of the occupants of the vehicle.



By our improvement, the occupant of the vehicle is enabled to easily and quickly raise or lower the top when desired, without the necessity of getting out of the vehicle or reaching out around the top.

Our improved device is moreover capable of ready attachment to various styles of vehicles which are provided with tops adapted to be raised and lowered.

10 Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States, is:—

15 A device for operating vehicle tops, comprising a rock shaft adapted to be journaled transversely upon the vehicle body, rock arms or levers extending from opposite ends of the said shaft and adapted for operative engagement with the top braces at opposite sides of

the vehicle top, the ends of the rock shaft being further provided with laterally bent portions adapted to move downward below the level of the pivotal connections of the braces with the vehicle body when the top is lowered, and an operating lever or handle secured to the rock shaft for actuating the latter, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

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Witnesses:

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