

A. Soursin.
Carriage Top.
N^o 66,747. Patented Jul. 16, 1867.

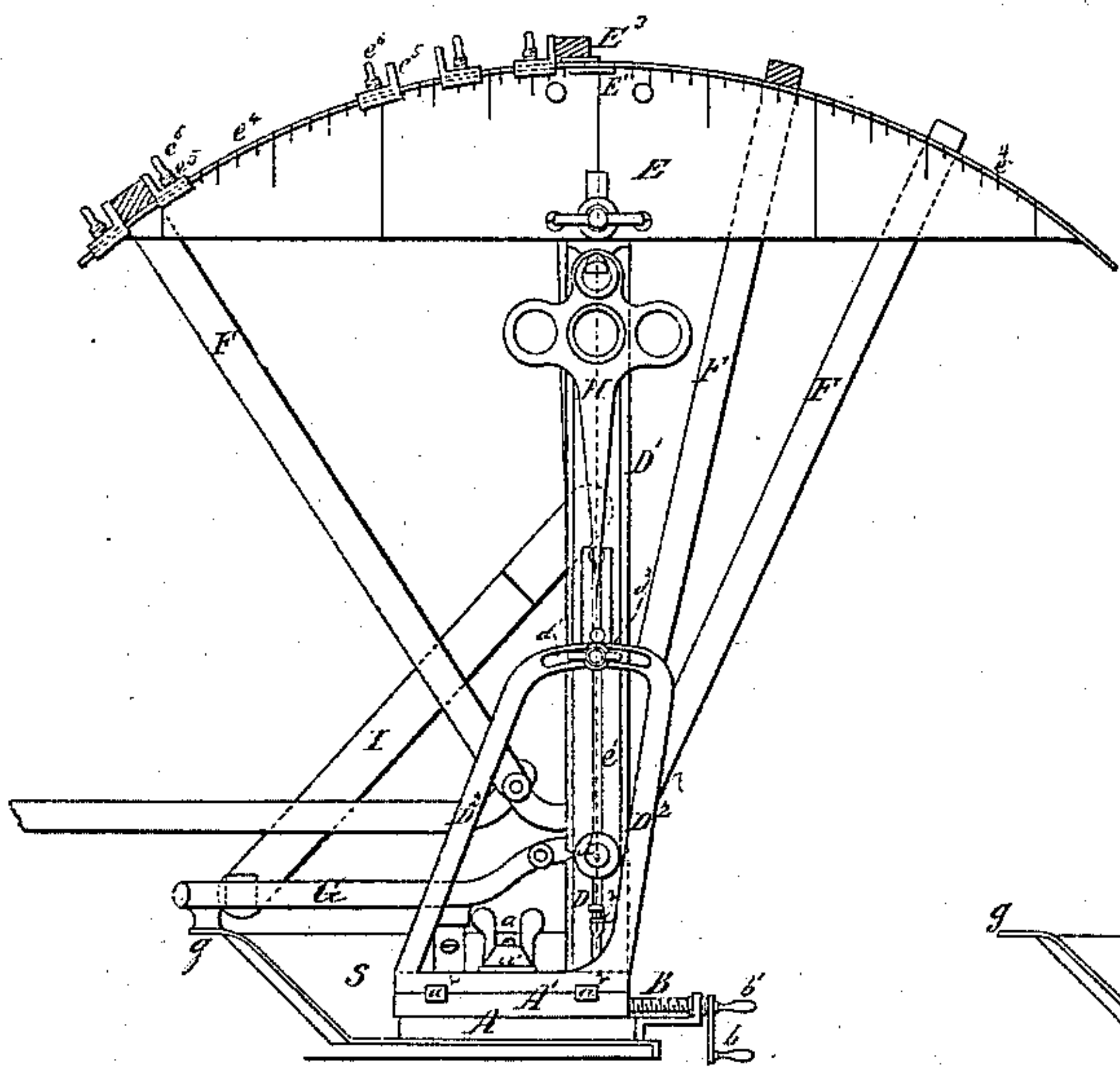


Fig. 1.

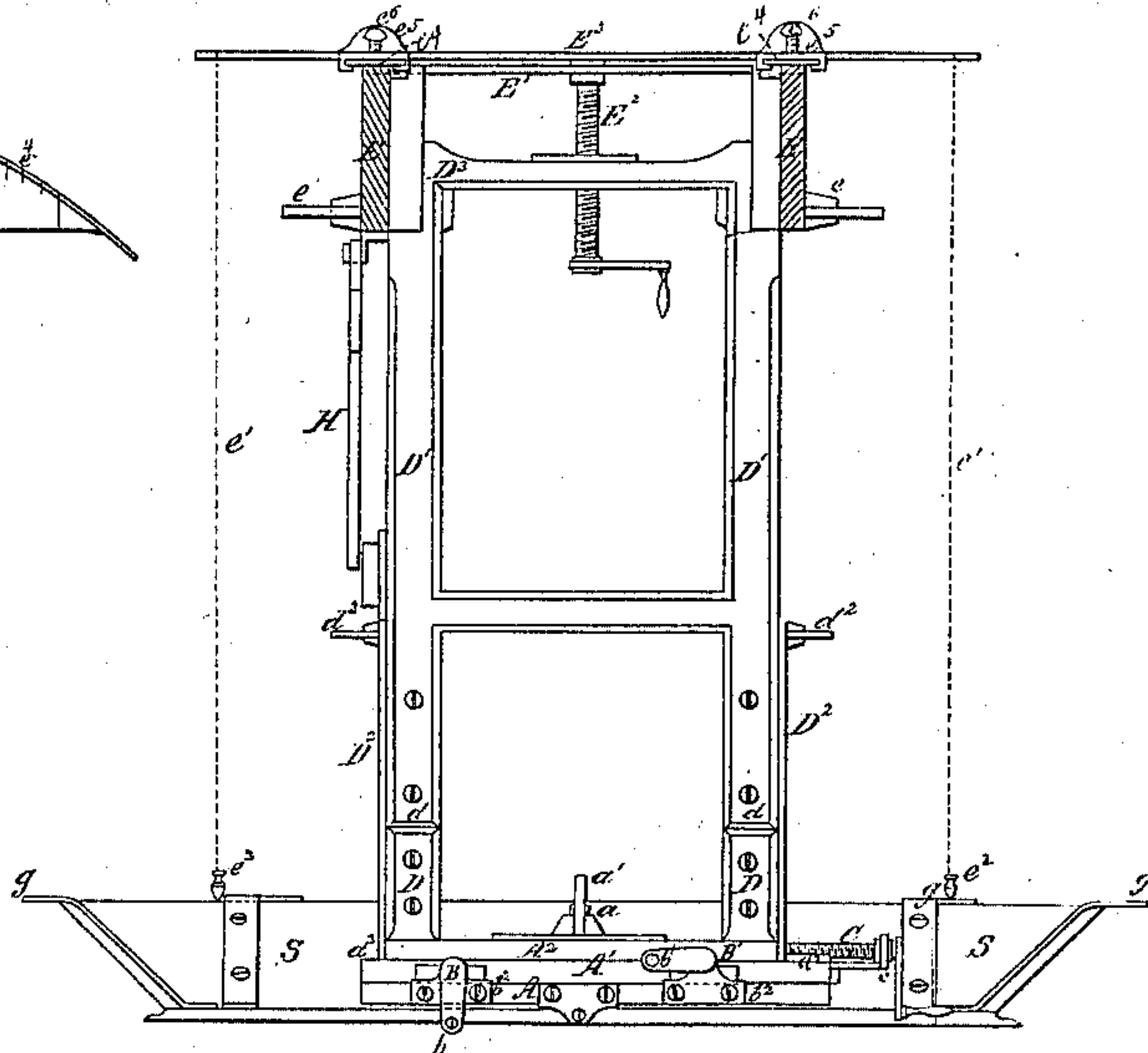


Fig. 2.

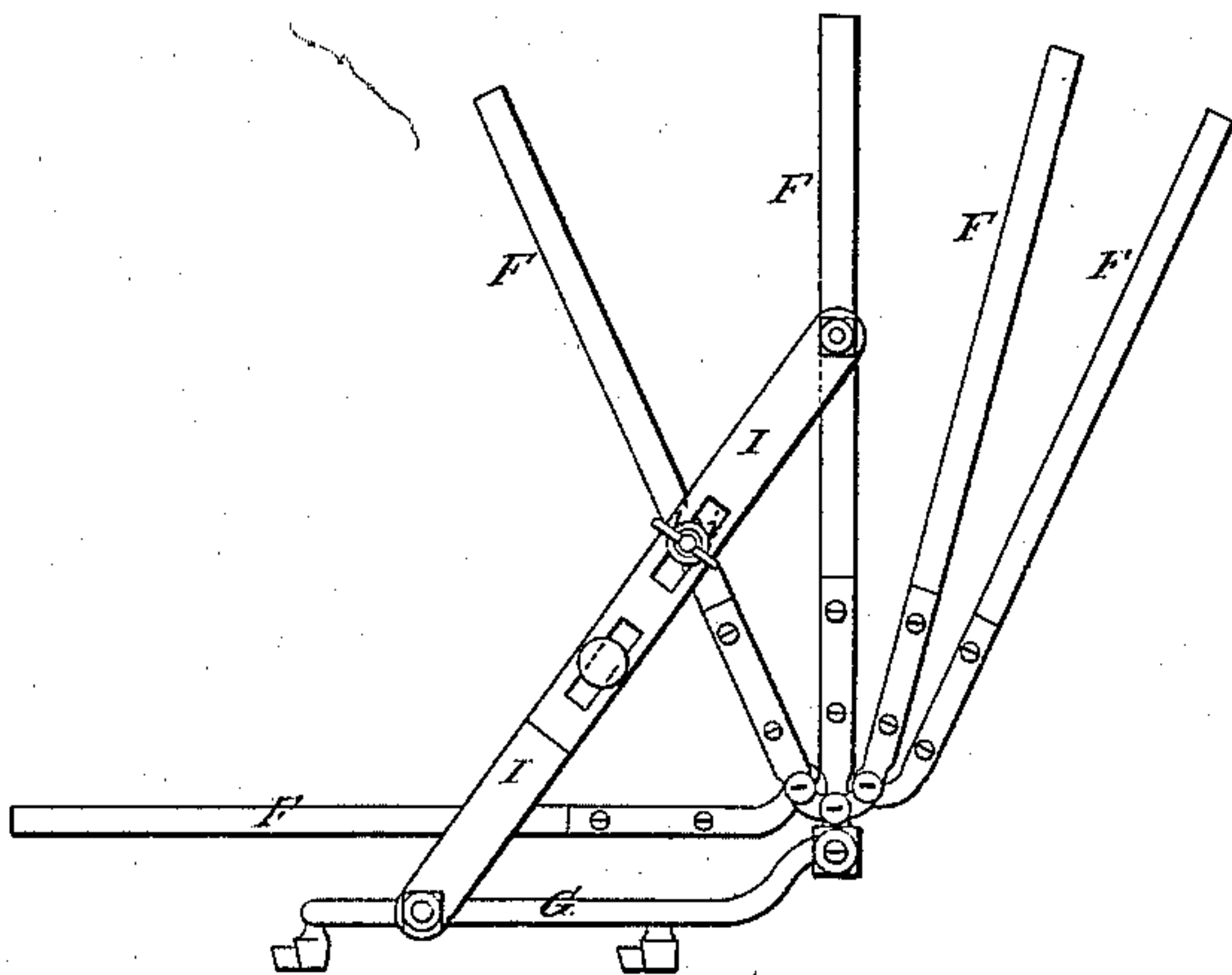


Fig. 3.

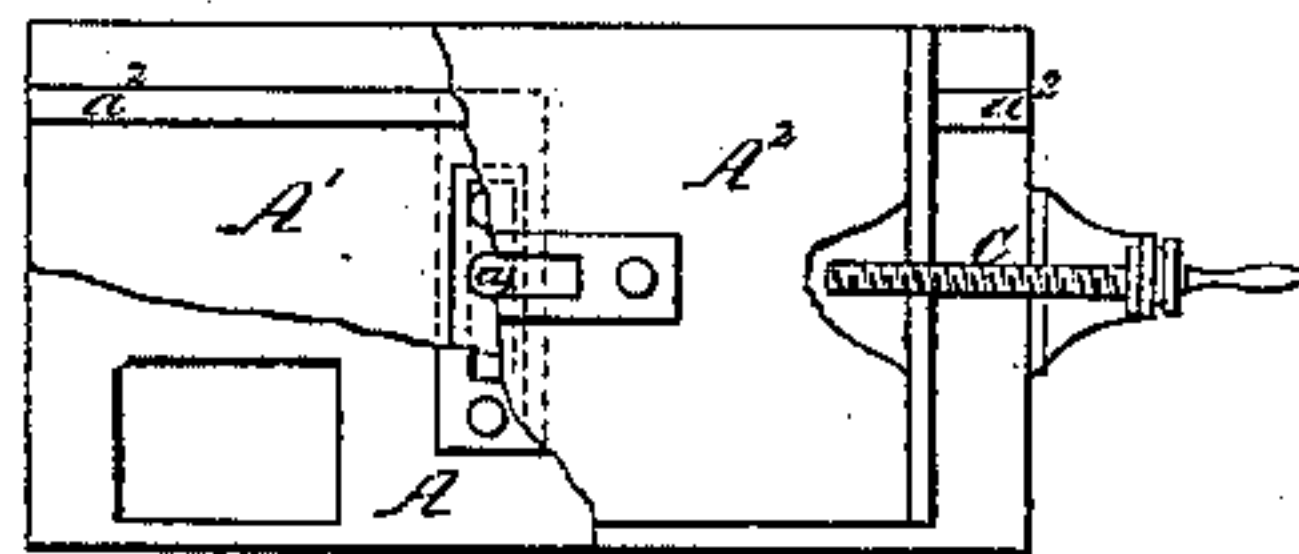


Fig. 4.

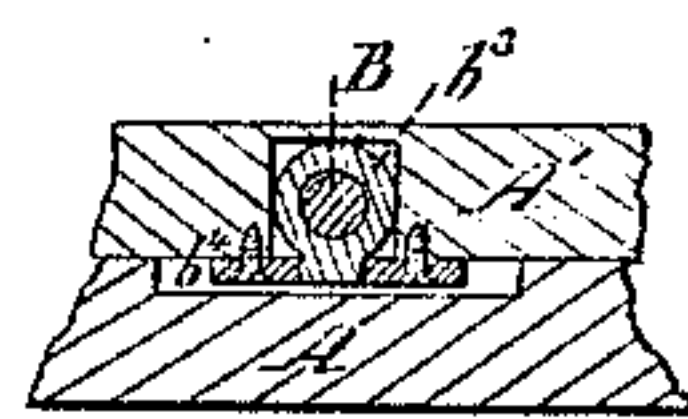


Fig. 5.

Witnesses

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ANTOINE SOURSIN, OF ST. LOUIS, MISSOURI.

Letters Patent No. 66,747, dated July 16, 1867.

IMPROVEMENT IN MACHINES FOR ADJUSTING CARRIAGE-TOP BOWS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANTOINE SOURSIN, of the city and county of St. Louis, and State of Missouri, have invented a new and useful Machine for Adjusting Carriage-Top Bows; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of this invention consists in the employment of an adjustable frame, erected temporarily upon the seat of the vehicle to which the hoops are to be attached, the top of the said frame being fitted to the contour of the prospective top, and made adjustable laterally, longitudinally, or diagonally, by means of certain screws and other devices, hereinafter more fully explained, thus enabling the artisan employed in placing the hoops or bows upon the vehicle to evenly balance the same upon both sides of the top, and thereby secure a top of much greater symmetry and beauty than it was possible to produce by the old method, when the eye alone was to judge which of the two sides overhung the most. And, in addition to this very valuable improvement, there is another, in this, that the time occupied in adjusting the top by this method is less than one-quarter employed by the old method.

To enable those skilled in the art to make and use my improved top-adjusting machine, I will proceed to describe its construction and operation.

Figure 1 of the accompanying drawings is a sectional elevation of the adjusting machine, and also of a carriage-seat to which it is attached.

Figure 2 is a front elevation of the same.

Figure 3 is a side elevation of the top and a portion of the adjusting apparatus.

Figure 4 is a sectional plan of the seat-attachment or adjustable bed-plates of the machine.

Figure 5 is a vertical section of the parts shown in fig. 4.

S is the carriage-seat, to the top of which the bed-plate A is to be affixed by means of screws, when this machine is to be used. Immediately above the bed-plate A and resting on it is another similar plate or carriage A¹, and above this latter plate again another, A². A central set-screw, *a*, passes vertically through the whole three of the plates, and when the whole of these plates have been properly placed they will be held in position by means of the thumb-nut *a*¹ screwed down tightly to the topmost plate A². The perforation through the plate A¹ for the bolt *a* is such as to confine the said bolt to a central position with reference to the plane of the said plate, while a slot cut transversely in the plate A permits the said bolt *a* to have a longitudinal motion (with reference to the vehicle) therein, and a similar longitudinal slot cut in the plate A² for the said bolt *a* permits the said plate A² to have a transverse motion (with reference to the vehicle.) There are two screws, B B¹, operated by cranks *b b*¹, the said screws being attached by means of the swivel-heads *b*² to the plate A, and by means of swivel-nuts *b*³ to plate A¹. This arrangement of the screws B B¹ and the bolts *a* permits one or both ends of the plate A¹ to be drawn forward or shoved back, by simply turning the said screws, or either of them, in the desired direction, and the plate A¹ may in this manner be placed squarely across the vehicle, and as far forward or backward as may be desired, and as will be indicated by the plummets hereinafter described. The plate A² is fitted on to the plate A¹, with two intervening ways or tracks *a*², which serve to keep the edges of the two pieces in the same vertical planes, and the screw C, having its head *c* fastened to the plate A¹ and its nut to the plate A², may be used to move the said plate A¹ to one side of the vehicle or the other, as may be required, and as will be indicated by the before-mentioned plummets. As the ways or tracks *a*² keep the two plates A¹ A² together laterally, it follows that the longitudinal adjustment by means of the screws B B¹ will extend to both plates, but the transverse adjustment by means of the screw C will only extend to the topmost plate A². On the outer ends of this plate are erected two short posts D, and to the upper ends of these posts are attached two other longer ones, D¹, by means of the knuckle-joint *d*. To the top ends of the posts D¹ are fixed two segmental beams E, on top of which the hoops or bows F are placed, preparatory to securing their lower ends to the vehicle. There are two adjusting-arms D² securely fixed to the ends of the plate A², and extending upward outside of and contiguous to the posts D and a short distance above the joint *d*. In their upper ends are segmental slots *d*¹, through which bolts fixed to posts D¹ pass, the said bolts being provided with set-nuts or thumb-nuts *d*², for tightening the said screws at any position required. The top ends of the posts D¹ have a

pendulous motion, fore and aft, about the point or pivot d , and when the proper position for the beams E is obtained the set-screws d^2 will be tightened up on the arms D^2 , and the whole apparatus will be thus adjusted in this respect. The beams E have a cross-beam, E^1 , between them, to which they are firmly fixed, and a beam, D^3 , is likewise placed between the top ends of the posts D^1 . A screw, E^2 , acting on the beam D^3 as a fulcrum, and against the beam E^1 as a weight, may be used to raise or lower the two beams E , as may be desired, and when the proper adjustment of the said beams (vertically) is obtained, the set-screws e will serve to hold them in place. A cross-bar, E^3 , is to be laid across the tops of the two beams E , outside of which beams the ends of the said bar will extend some distance, say one or two feet, (more or less,) and where the said ends will be provided with plumb lines e^1 , to the lower end of which plummets e^2 are to be attached. The bar E^3 will be provided with some sort of studs or dowels for centring it on the beams E , and the plummets e^2 will be arranged so as to fall on some fixed portion of the carriage-seat, as, for instance, a corner, or the projecting arm g of the shifting rail G . The top edges of the beams E will have metallic rails e^4 secured to them, and at short intervals on these rails there will be sliding clamps e^5 , which may be adjusted to any position on the said rails and then secured in place by means of the set-screws e^6 .

The operation of the machine thus constructed will be as follows: The apparatus will be placed centrally on top of the seat S , and the bed-plate A secured in that position by means of wood-screws. As the seat-top may be inclined more or less from the plane of the horizon in different vehicles, the first thing to be done after having secured the bed-plate to the seat, will be to adjust the posts D^1 to a vertical position, by moving the tops of them forward or backward, thus pendulating them about the point d , and, after the adjustment, the nuts d^2 will be used to secure the posts in position. A plummet, H , attached to one of the posts D^1 , is used for indicating the vertical position. After the vertical adjustment of the posts D^1 shall have been completed, the transverse and longitudinal adjustment of the plates A^1 and A^2 will be completed by the manipulation of the screws B B^1 and C , the plummets e^2 being used to indicate the proper position for the top part of the apparatus during the adjustment. The next and last adjustment will be the vertical adjustment of the beams E by means of the screws E^2 and e . The hoops or bows F will then be laid on the tops of the beams E , the exterior faces of which should be graduated with inch marks and fractional parts of the inches, so as to readily place the said hoops at regular intervals. After the hoops are thus disposed on the beams they will be secured thereon by means of the screw-clamps e^5 , until their lower ends are securely fixed to the hinge joints of the shifting rail. After this is accomplished the whole apparatus may be removed, and the top will be left standing in a perfectly symmetrical form.

In order to render the central hoop or bow F equidistant (on both sides of the vehicle) from the back arm of the shifting bar G , I employ two pairs of sliding sticks, I I' , which are arranged to envelop each other, and then secured by set-screws i' , slots i being made in each piece, I and I' , for the said screws to slide in. These rods or sticks may then be set to any required length, before being placed on the carriage, and then placed on the arms g and the joint-arms projecting from the central hoop, as clearly shown in fig. 3.

Having described my invention, what I claim is—

1. An adjustable framework, E E^1 , when applied to a carriage body or rest in such a manner as to form a falsework or frame on which to place and adjust the carriage-bows or hoops, preparatory to fixing the said hoops on the vehicle, substantially as herein described and set forth.

2. I claim the bed-plate A A^1 A^2 , when combined and arranged substantially as herein set forth for the purpose of adjusting the machine laterally and longitudinally on the vehicle to which it is applied.

3. I claim the posts D , when combined with the pendulous posts D^1 and the adjusting-arms D^2 , as herein described and set forth.

4. I claim the graduated beams E , in combination with the beams E^1 and D and the screws E^2 and e , as and for the purpose set forth.

5. I claim the sliding stick I I' , when constructed and employed as and for the purpose set forth.

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Witnesses:

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