

No. 874,963.

PATENTED DEC. 31, 1907.

S. D. HUNTER.
HOLDER FOR AUTOMOBILE TOP BOWS.
APPLICATION FILED AUG. 24, 1907.

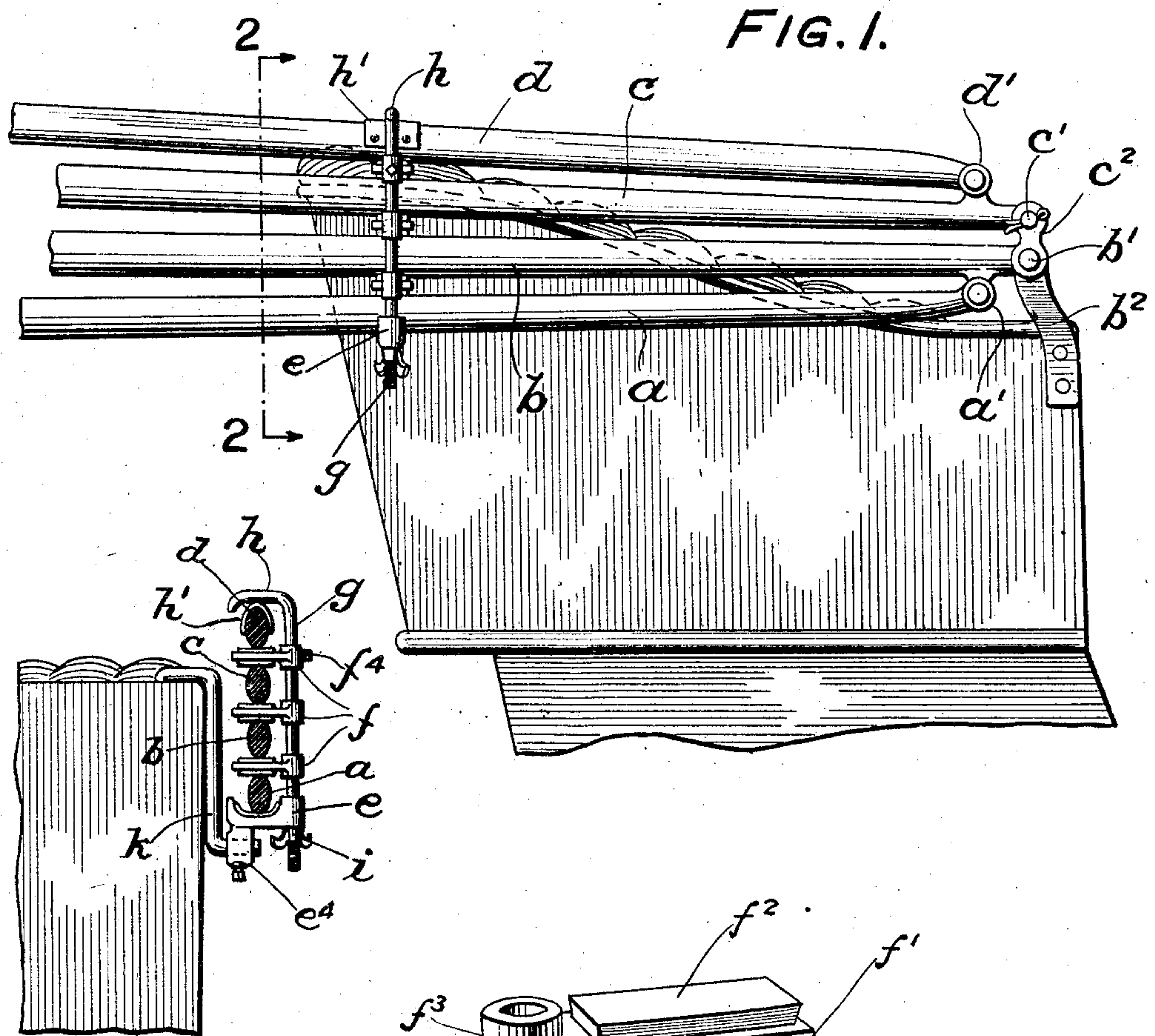
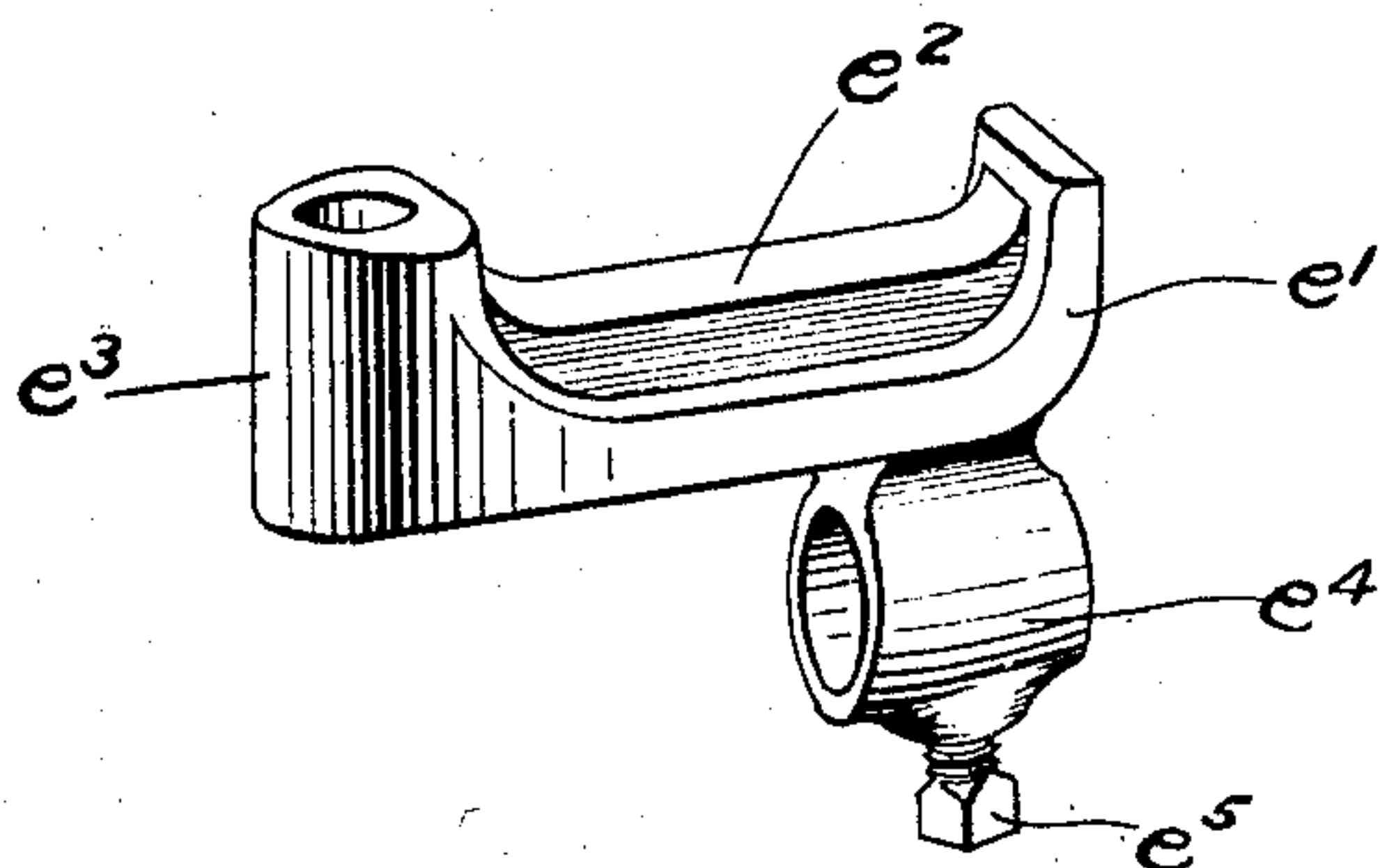
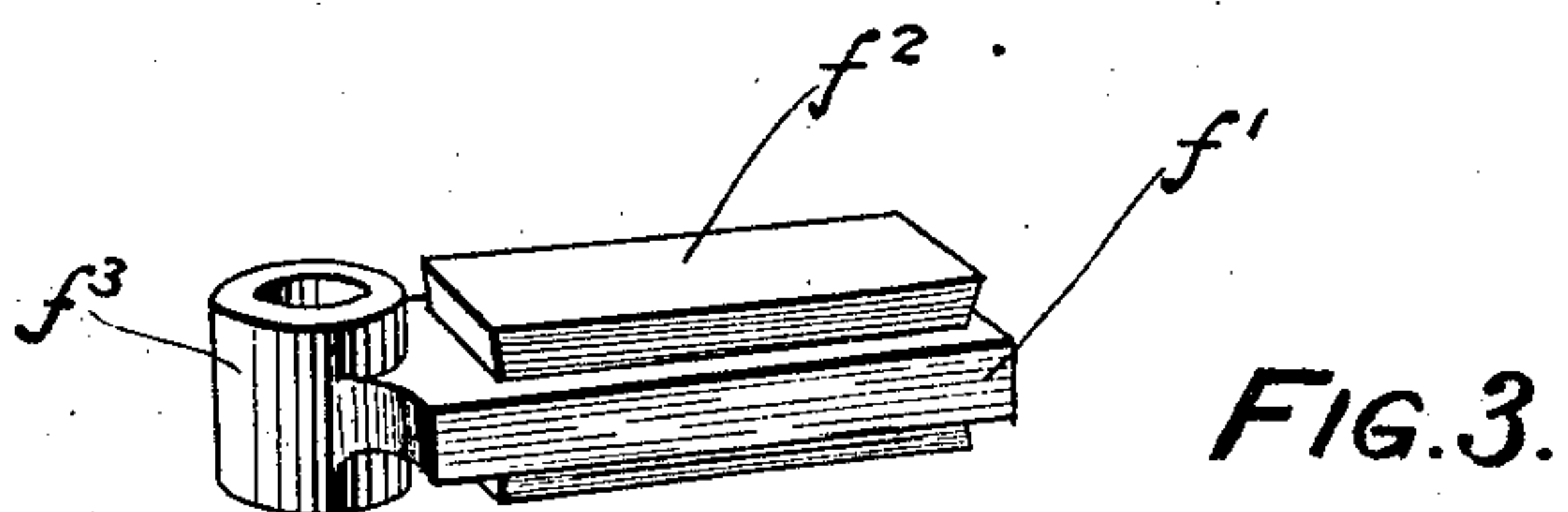


FIG. 2.



WITNESSES:

Robt R. Kitchel.
E. E. Wall

INVENTOR

Stephen D. Hunter
BY
Harding & Harding
ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEPHEN D. HUNTER, OF PHILADELPHIA, PENNSYLVANIA.

HOLDER FOR AUTOMOBILE-TOP BOWS.

No. 874,963.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed August 24, 1907. Serial No. 389,940.

To all whom it may concern:

Be it known that I, STEPHEN D. HUNTER, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Holders for Automobile-Top Bows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The invention relates to automobile tops and more particularly to the bows or bow-sockets thereof and the securing of the same in folded position. As is well known, there are a plurality of bows on each side, which bows may be of tubular steel or wood, and may be covered or uncovered. When the top is not in use, the bows are folded down into a horizontal position and the flexible top cover tucked in between them. When so folded down, means should be devised to hold them spaced apart and in fixed relation with each other, as otherwise the jolting to which the vehicle is subjected causes the bows to be constantly in motion, with resultant serious injury, due to mutual frictional contact, to the top cover and to the bows.

The specific object of my invention is to provide a device by means of which the bows, when in folded position, may be held spaced apart and stationary with relation to the car-body and to each other, so as to altogether avoid the damage arising from any disturbance of the desired fixed relation between the bows.

At the same time, the object of the invention is to accomplish this result by a device that may be readily engaged with, and disengaged from, the bows, so as to facilitate the setting up or taking down of the top.

In the drawings: Figure 1 is a side elevation of the bows in folded position with my improved holder in operative relation therewith. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one of the spacing plates. Fig. 4 is a perspective view of the lower spacing plate.

a, b, are the rear pair of bows, the bow *b* being pivotally mounted on a pin *b'* secured to a bracket *b²* on the car-body, and the bow *a* being pivotally mounted on an ear *a'* projecting from the bow *b*.

c, d, are the front pair of bows, the bow *c* having a pivot pin *c'* which, when the top is set up, pivotally engages an orificed member

(not shown) on the front of the car-body, and the bow *d* being pivotally mounted on an ear *d'* projecting from the bow *c*. When the top is to be taken down, the bow *c* is disengaged from its support and its pivot pin inserted into an orifice in an ear *c²* secured to the pivoted end of the bow *b*. Thus all the bows are hinged, directly or indirectly, on a common pivot and are folded down to occupy the position shown in Fig. 1, in which the bows are arranged in a horizontal position, one above the other and extending backwardly beyond the rear of the car-body.

The arrangement above described is substantially old and well known; and my invention consists in the device for securely holding the bows spaced apart and in the position illustrated in the drawings. This device comprises, in general, a lower end spacing or clamping plate *e* upon which rests the lower bow *a*, spacing plates *f* extending between adjacent bows, a rod *g* upon which the plates *f* are strung, an upper member *h* against which the upper bow *d* is confined, and an adjusting thumb-nut *i* engaging a threaded part of the rod *g* and the lower end plate *e* and by means of which the bows are fastened in position or released.

The device is shown as supported upon a bracket *k* secured to the back of the rear seat, the said bracket having a transversely extending end inserted within a hollow boss *e⁴* depending from the lower end plate *e* and held in position by means of a set-screw *e⁵*.

Each spacing plate *f* comprises a substantially rectangular shaped metal frame *f'* having its interior cut away to form a substantially rectangular orifice into which is sprung a rubber cushion or pad *f²*. This pad is substantially thicker than the metal frame and projects above and below the frame. The spacing plate *f* also comprises a boss *f³* through which extends the upright rod *g*.

The lower end plate *e* is constructed in substantially the same manner as the spacing plates *f*, the only difference being that the metal frame *e'* is somewhat dished out on its upper side, and is provided centrally with a depression into which the pad *e²* is sprung. The pad *e²* is of sufficient thickness to project above the frame *e'*. The plate *e* also comprises the boss *e³* through which extends the rod *g*. The upper end of the rod *g* is bent transversely inwardly so as to form the upper end member *h*, engaging the upper bow *d*. The upper bow may have

secured thereto a wearing plate h' against which the member h directly abuts.

When the holder is not in use, the plates f slide down the rod g and rest one upon another and upon plate e . They may be held from rattling or from disturbance of position by tightening the set-screw f^4 , which extends through the boss f^3 on the upper spacing plate and engages the rod g .
 10 When the top is taken down and the front pair of bows hinged to the rear pair as described, the bows are swung into the position shown in Fig. 1, one after another, and the spacing plates f slipped upwardly on the
 15 rod g and arranged to alternate with the bars, as shown. The nut i is then turned to draw down the rod g and the upper member h integral therewith until the bows are held within the holder with the desired
 20 tightness. To release the bows when it is desired to set up the top, it is only necessary to unscrew the nut i until the clamping pressure of the holder members is released, whereupon the rod g may be given a quarter
 25 turn, permitting the bows to be swung upwardly.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

30 1. A holder for the bows of an automobile top, comprising a rod, a member carried at one end of the rod against which one outside bow is adapted to abut, a series of spacing plates supported by, and freely movable
 35 along, said rod and adapted to be arranged alternately with respect to the bows, and an end plate carried by the rod and adapted to abut against the other outside bow and means to move the end plate toward said
 40 end member, thereby moving all the plates along the rod and clamping the bows.

2. A holder for the bows of an automobile top, comprising an upright rod, spacing
 45 plates freely movable thereon and adapted to be arranged alternately with respect to

the bows, and adjusting means adapted to move said plates along the rod and relatively toward each other, thereby clamping the bows.

3. A holder for the bows of an automobile top, comprising an upright rod, spacing plates freely movable thereon and adapted to receive said bows, one between each two adjacent plates, and a nut engaging said rod and one of said plates. 50 55

4. A holder for the bows of an automobile top comprising an upright threaded rod, an end member carried by said rod and adapted to engage one of said bows, spacing plates sleeved and freely movable thereon, and a
 60 nut on said rod engaging one of said plates.

5. A holder for the bows of an automobile top comprising a lower end plate, an upright rod extending through said plate, an upper end member carried by said rod, a
 65 series of spacing plates sleeved and freely movable on said rod between said lower end plate and upper end member, and means to adjustably move said rod vertically with relation to the lower end plate. 70

6. A holder for the bows of an automobile top comprising a lower end plate having a depression, a pad seated in and projecting above said depression, an upright rod on which said plate is sleeved, an upper end
 75 member carried by said rod, a series of orificed frames sleeved on said rod between said lower end plate and upper end member, pads inserted within the orifices in said frames and projecting above and below
 80 said frames, and means to adjustably move said rod vertically with relation to the lower end plate.

In testimony of which invention, I have hereunto set my hand, at Philadelphia, Pa.,
 85 on this 19th day of August, 1907.

STEPHEN D. HUNTER.

Witnesses:

ROBT. T. BICKNELL,
 E. E. WALL.