D. T. BROCK & E. REEVE.

HOOD FOR USE ON ROAD VEHICLES.

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952,183.

Patented Mar. 15, 1910.

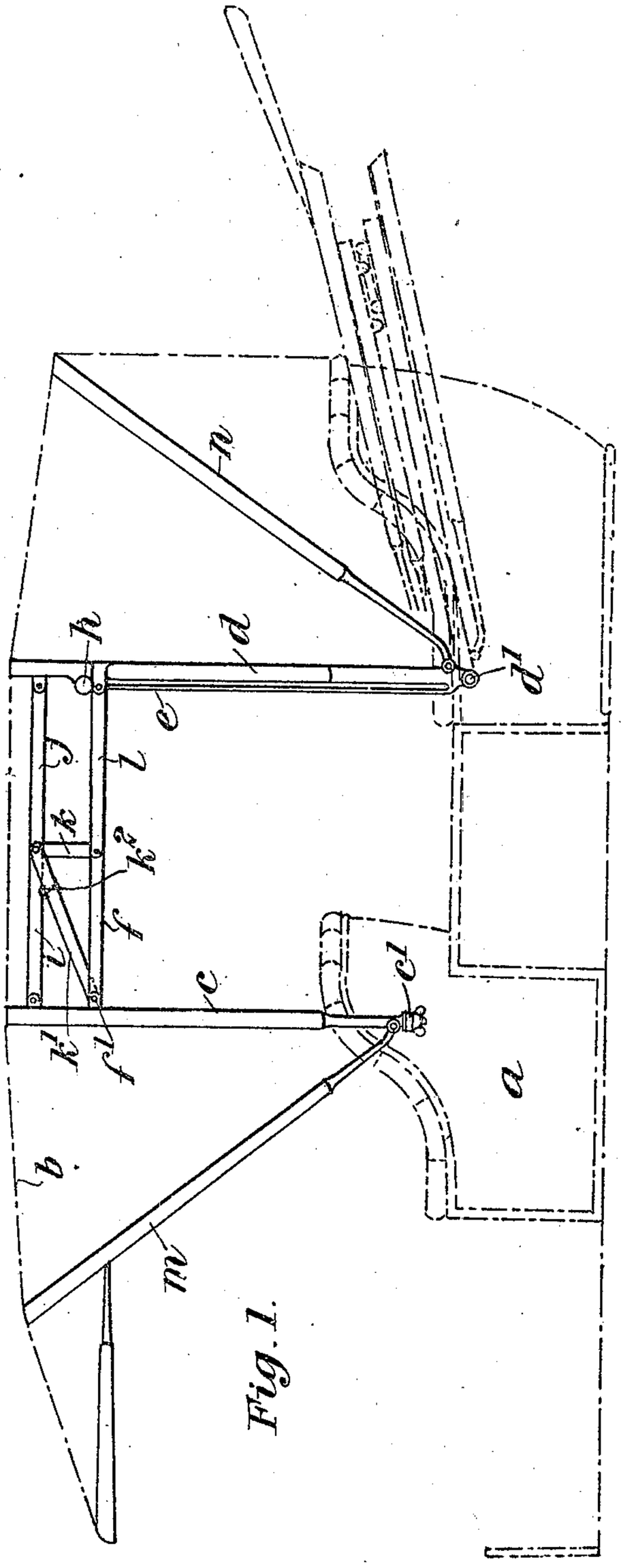

Fig. 1.

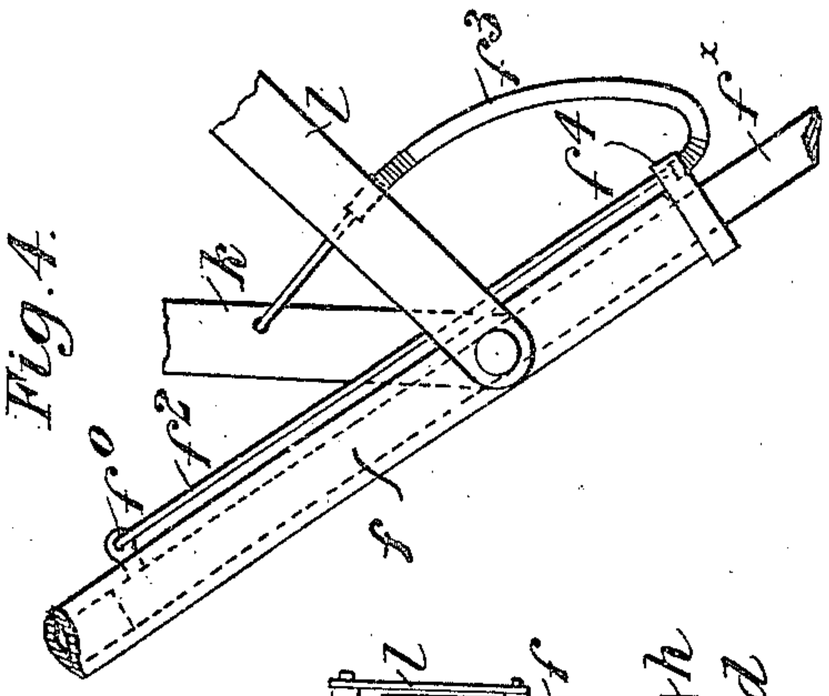

Fig. 4.

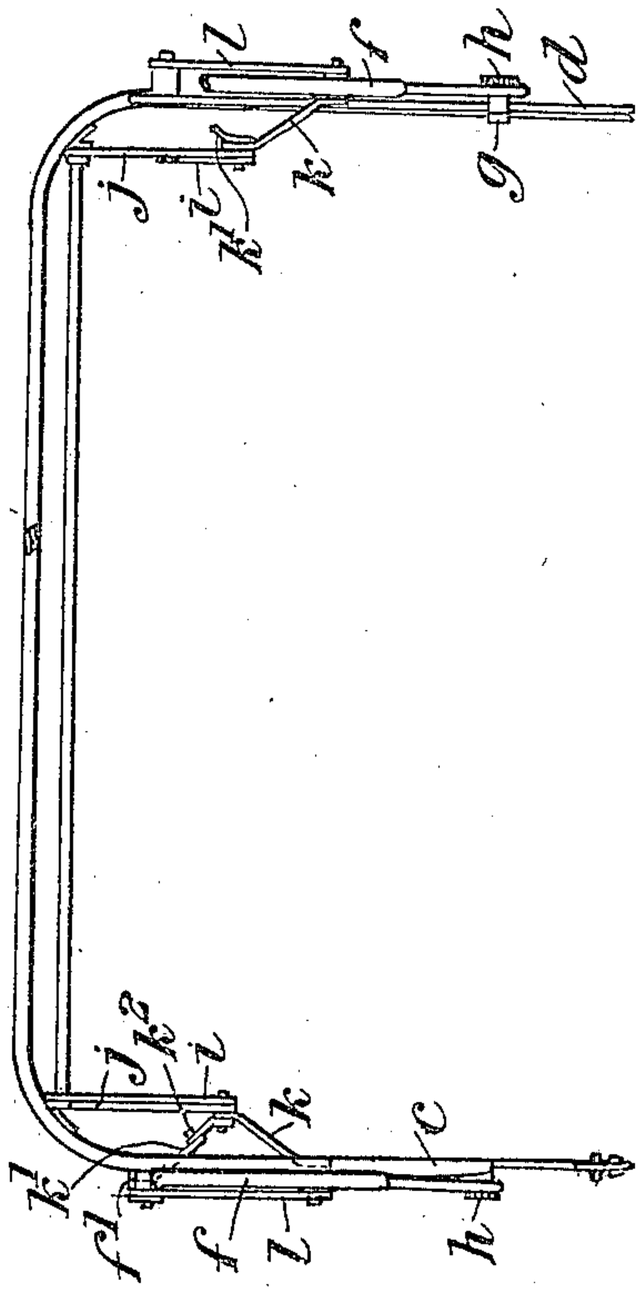

Fig. 3.

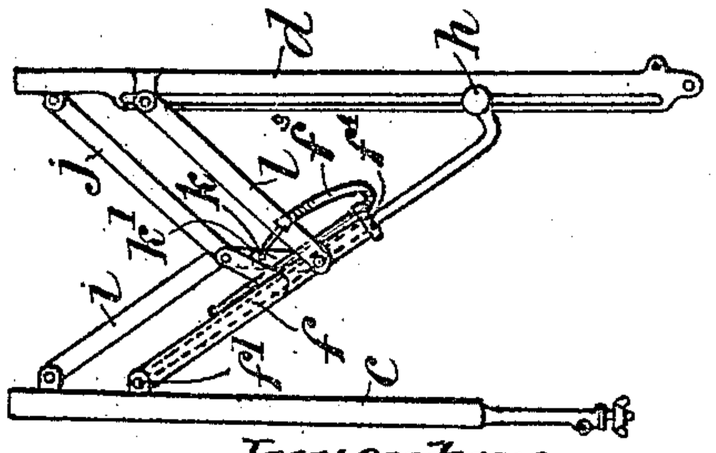

Fig. 2.

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UNITED STATES PATENT OFFICE.

DENIS TABOR BROCK, OF LONDON, AND EZRA REEVE, OF BEDFORD, ENGLAND.

HOOD FOR USE ON ROAD-VEHICLES.

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To all whom it may concern:

Be it known that we, DENIS TABOR BROCK, a subject of the King of Great Britain, residing at Kenmare, St. Mary's Road, Ealing, London, England, and EZRA REEVE, a subject of the King of Great Britain, residing at 44 Ashwell street, Leighton Buzzard, Bedford, England, have invented new and useful Improvements in or Connected with Hoods for Use on Road-Vehicles, of which the following is a specification.

This invention relates to hoods of the kind supported on parallel bows, connected together at each side by a link pivoted to one bow and having a sliding connection with an adjacent bow to enable them to be shut together and has for its object to construct a hood in such a manner that the parallelism of the said bows when being moved to extend or close the hood is maintained so that the said hood is self-supporting and can be manipulated by a single person seated within the vehicle or from either side of the said vehicle.

According to the invention a link is jointed at one end to the middle of the link having the sliding connection with one of the bows and at the other end to the said bow, the said two links forming a toggle. Another pair of links also connected to the bows and forming another toggle are arranged parallel to the said links, the said pair of toggles being connected together at the central joint by a vertical link. A two-part link is also arranged between the central joint of one toggle and the joint of the other toggle with one of the bows, the said link parts when in alinement serving to hold the hood rigid when one bow is extended relatively to the other bow.

To enable our invention to be fully understood we will describe the same by reference to the accompanying drawing, in which:—

Figure 1 is a side view of a hood having the improvements applied thereto. Fig. 2 is a view of the same showing the frame partly closed, Fig. 3 is a view of the frame with the peak and a portion of the front member removed, and Fig. 4 is a view of a detail hereinafter described.

a represents in broken lines the outline of the motor car body and *b* represents the hood.

c is the front upright bow forming part of the frame of the hood, and which, when the hood is extended, is held in the brackets *c'*, *c'* on the vehicle body, and *d* is the rear upright bow, the said bow *d* being formed with a longitudinal slot *e* and being pivoted at *d'* to the body of the vehicle.

f, *f* are the arms which are pivoted at *f'* to the front bow *c* on either side thereof and are provided at their other ends with pins *g* engaging the aforesaid slots *e*, *e* in the rear bow *d*. These pins can be locked in position in the slots *e*, to which they may be adjusted by means of the screws *h*, *h*.

As, in practice, the bodies of vehicles may be so dimensioned that the distance between the bows when extended is greater than the length of the slots in the rear bow we may provide means whereby this difference is allowed for. To this end the said pivoted arms or levers *f*, *f*, may, for example, be made telescopic, as shown the inner telescopic part being indicated by $f^{\times}$, and suitable means are provided for rigidly holding the said arms in any position to which they may be adjusted. For example, we may employ a framework comprising on each side of the hood *b* a pair of toggle levers *i*, *j* connected respectively to the front and rear bows *c* and *d* and at their point of connection together to the upper end of a link *k* the lower end of which is secured to the aforementioned telescopic arm *f* and to one end of a link *l* the other end of which is attached to the slotted bow *d* and is parallel with the link *j* as clearly shown in Figs. 1 and 2.

k' is a link jointed at k^2 which is hinged to the joint between the link *k* and the levers *i* and *j* at one end and at the other end to the joint *f'*. The object of this link is to hold the hood stiff when the links *f* and *l* are in alinement as shown in Fig. 1. Furthermore, we may attach to the inner member of each telescopic arm *f* at f° one end of a cord f^2 as shown in Fig. 4, the said cord being of the kind known as a Bowden brake cord and being attached at its other end to the link *k*. The cord is inclosed in the flexible tube f^3 one end of which is secured to a lug f^4 upon the tubular part of the telescopic arm while its other end is secured to the link *l*. This device has for its object to further assist in rigidly holding the telescopic arms in any position to which they may be adjusted. The cord or flexible connection will hold the inner member $f^{\times}$ of the telescopic arm f $f^{\times}$ from pushing abruptly into the outer member *f*, when the front bow is

being moved rearwardly in closing the hood and as the change of positions of the levers creates slack in the cord the member f^x will be allowed gradually to slide farther into the outer member, until its lower end reaches the bottom of the slot in the rear bow when the parts will be folded. In opening the hood the change in the relations of the levers will take up slack in the cord and gradually cause the extension of the telescopic arm, while its movable end is rising in the slot of the rear bow. This cord might be dispensed with if desired.

m is the frame supporting the peak of the hood this frame being attached at its lower end to the front bow *c* in the usual way and *n* is the ordinary frame which supports the rear part of the hood and is pivoted at its lower end to the rear bow *d*.

With a hood constructed as above described it will be obvious that the operation of extending or folding the same can be effected by one person from either side of the vehicle. Assuming that the hood is open, as shown in full lines in Fig. 1 and it is desired to fold the same it is merely necessary for the operator to remove the front bow *c* from the brackets *c'*, *c'* by which it is attached to the vehicle body *a* and to lift it backward so that it closes against the rear bow *d*, the pivoted arms or levers *f* running down the slots *e* in the rear bow *d* and the two bows and the said arms coming to lie against one another as shown in broken lines in Fig. 1 in which the whole of the hood is indicated as being folded back. When the hood is to be opened or extended the front bow *c* is lifted by the manipulator who, as above described may be standing on either side of the vehicle, or even may be within the vehicle, and who moves the front bow forward until it reaches the correct position, the pivoted arms or levers *f* at the same time rising up the slots *e* in the rear bow *d*. When the hood is fully extended the lower ends of the bow *c* are inserted in the brackets *c'* in the vehicle body in the usual way.

It will be obvious that in lieu of pivoting the arms *f* to the front bow or the equivalent and connecting them to slots in the rear bow, the said arms may be pivoted to the rear bows and caused to engage slots in the front bow, and it will also be understood that other means than those described may be made use of for stiffening or preventing the hood sagging when being opened or closed.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. In hoods for road vehicles, the combination of a pair of adjacent bows connected together at each side by a link pivoted to one bow and having a sliding connection with the other bow, of links which, together with the said link, form a pair of parallel toggles connecting the bows together and of a link connecting the members of each pair of toggles together at their central joints, substantially as described.

2. In hoods for road vehicles, the combination of a pair of adjacent bows connected together at each side by a link pivoted to one bow and having a sliding connection with the other bow, of links which together with the said link form a pair of parallel toggles connecting the bows together, a link connecting the members of each pair of toggles together at their central joints and a two-part link connecting the central joint of one toggle and the joint of the adjacent toggle with one of the bows, substantially as described.

3. In hoods for road vehicles, the combination of a pair of adjacent bows connected together by a telescopic link pivoted to one bow and having a sliding connection with the other bow of links which, together with the said link, form a pair of parallel toggles connecting the bows together, a link connecting the members of each pair of toggles together at their central joints, substantially as described.

4. In hoods for road vehicles, the combination of a pair of adjacent bows connected together at each side by a telescopic link pivoted to one bow and having a sliding connection with the other bow of links which, together with the said link, form a pair of parallel toggles connecting the bows together, a link connecting the members of each pair of toggles together at their central joints, a cord attached at one end to the inner member of each telescopic link and at the other end to the said connecting link and a flexible tube inclosing the said cord attached at one end to the tubular part of the telescopic link and at the other end to the link forming a toggle with said telescopic link, substantially as described.

5. In hoods for road vehicles, the combination with a pair of adjacent bows connected together at each side by a link pivoted to one bow, and having a sliding connection with the other bow, and means for detachably locking the said sliding connection, of links which together with said link form a pair of parallel toggles connecting the bows together, and a link connecting the central joints of said toggles together, substantially as described.

6. In hoods for road vehicles, the combination with a pair of adjacent bows, of a telescopic link at each side having one member pivotally connected to one bow, its other member having a sliding connection with the other bow, a link connected to the pivoted member of said telescopic link, and extending therefrom to the bow having the sliding connection and forming a toggle, a

second toggle connecting said bows, having its members parallel to the members of the first toggle, a vertically disposed link connecting the central joints of said toggles, and a flexible connection from said vertically disposed link to the sliding member of the telescopic link, said flexible connection having a sliding engagement with a part connected to the pivoted member of said telescopic link, substantially as described.

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