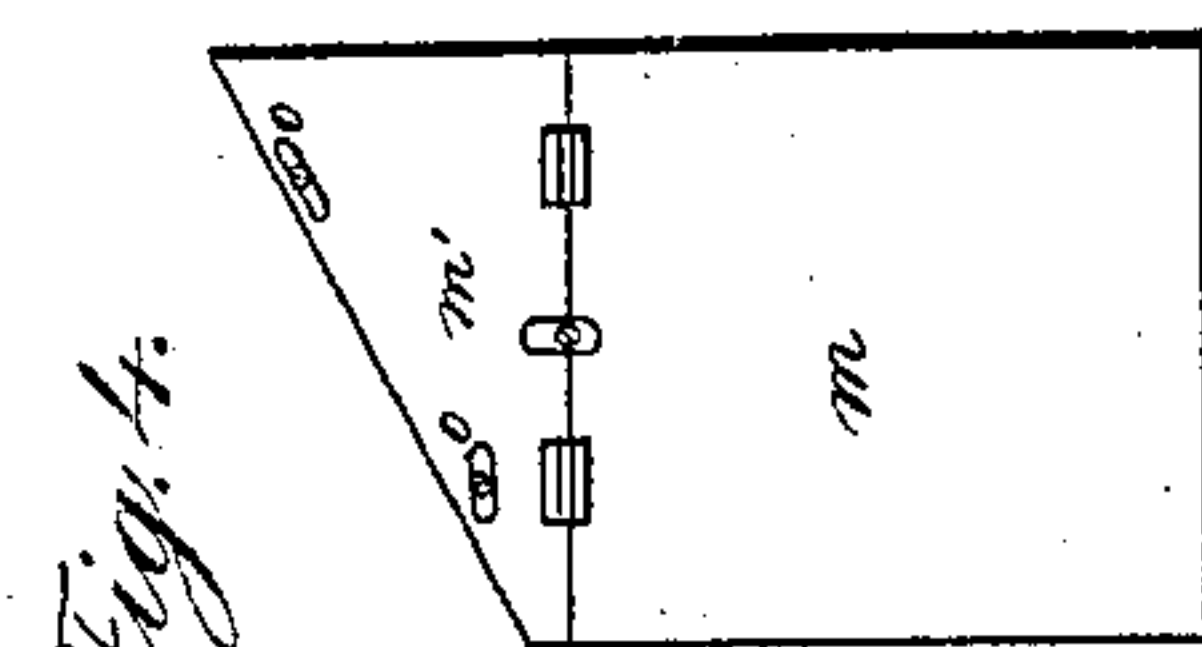
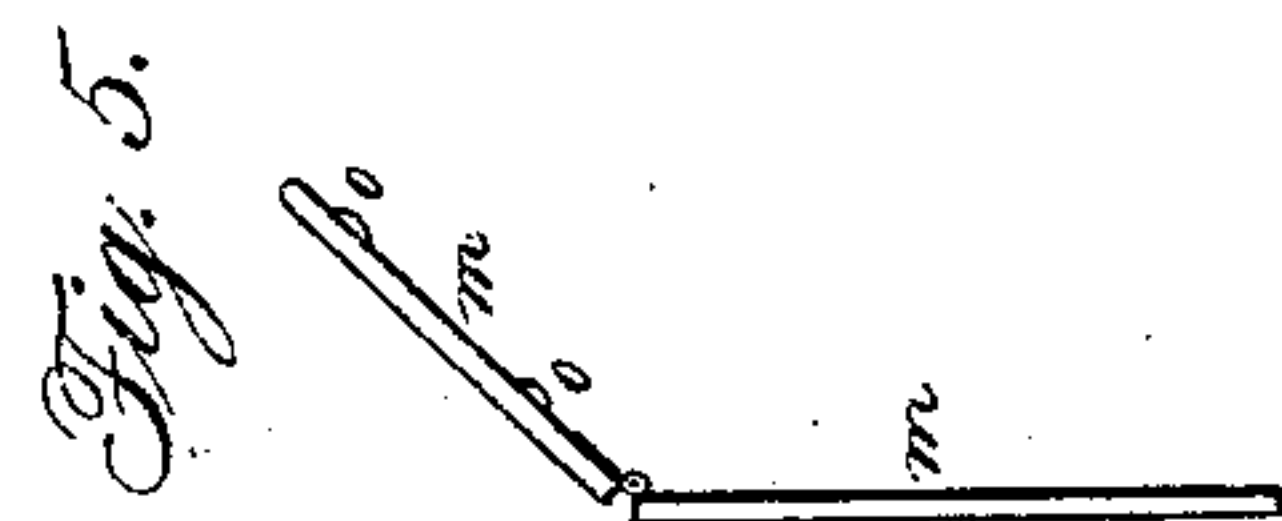
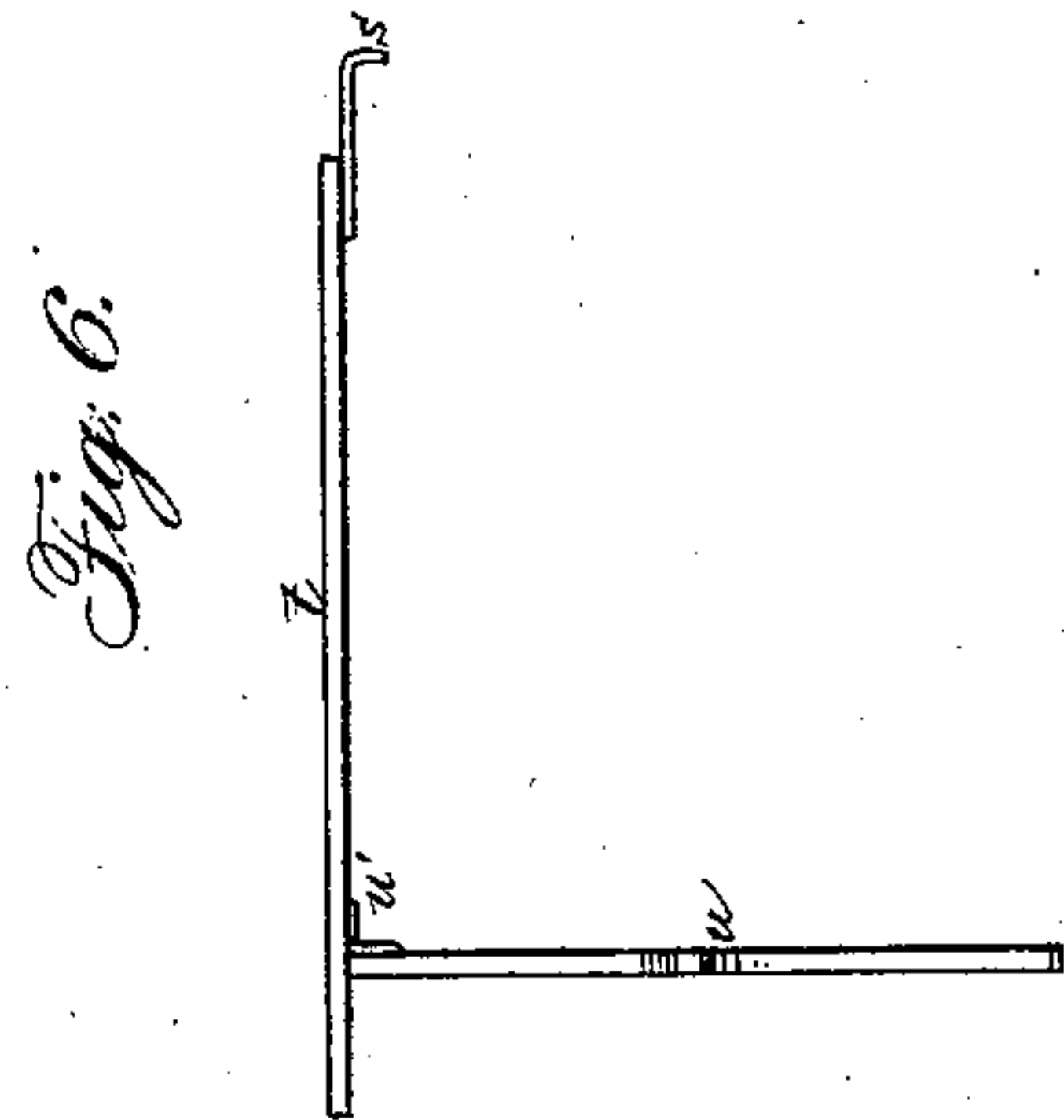
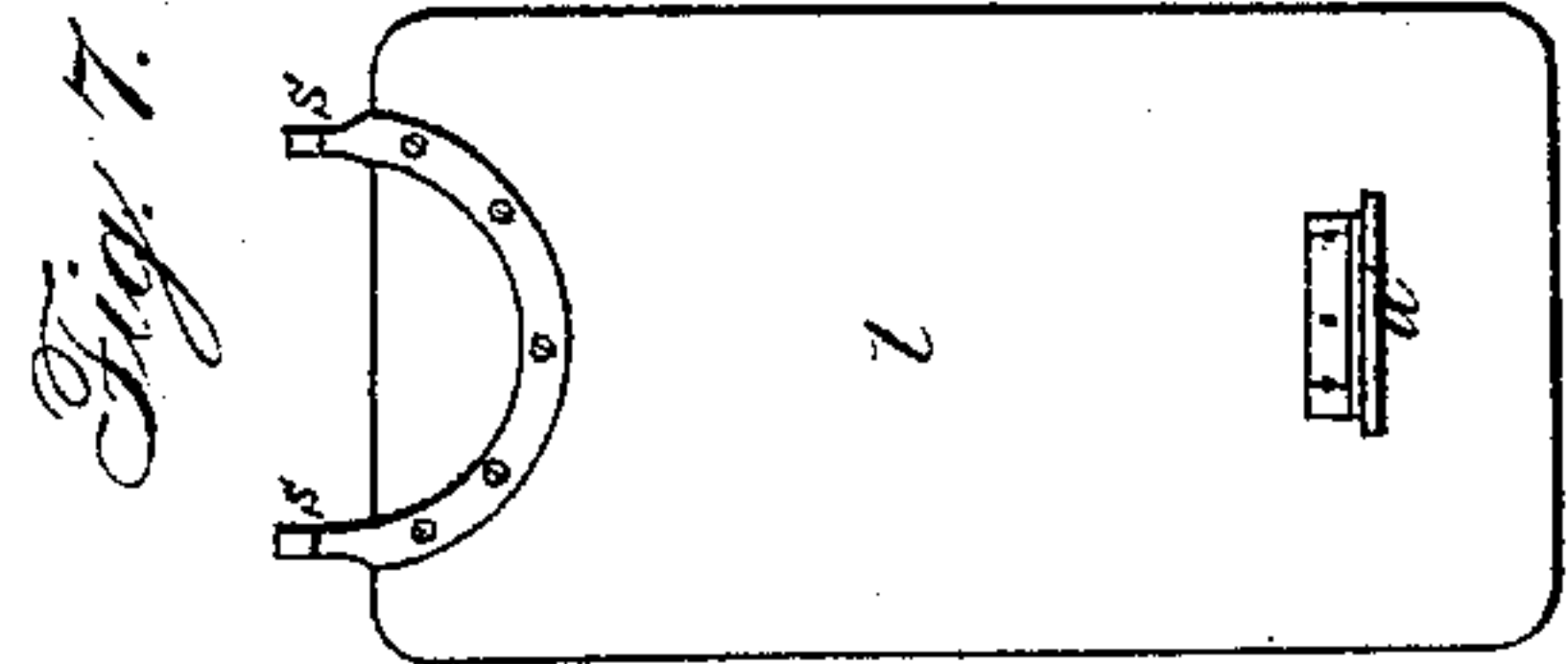
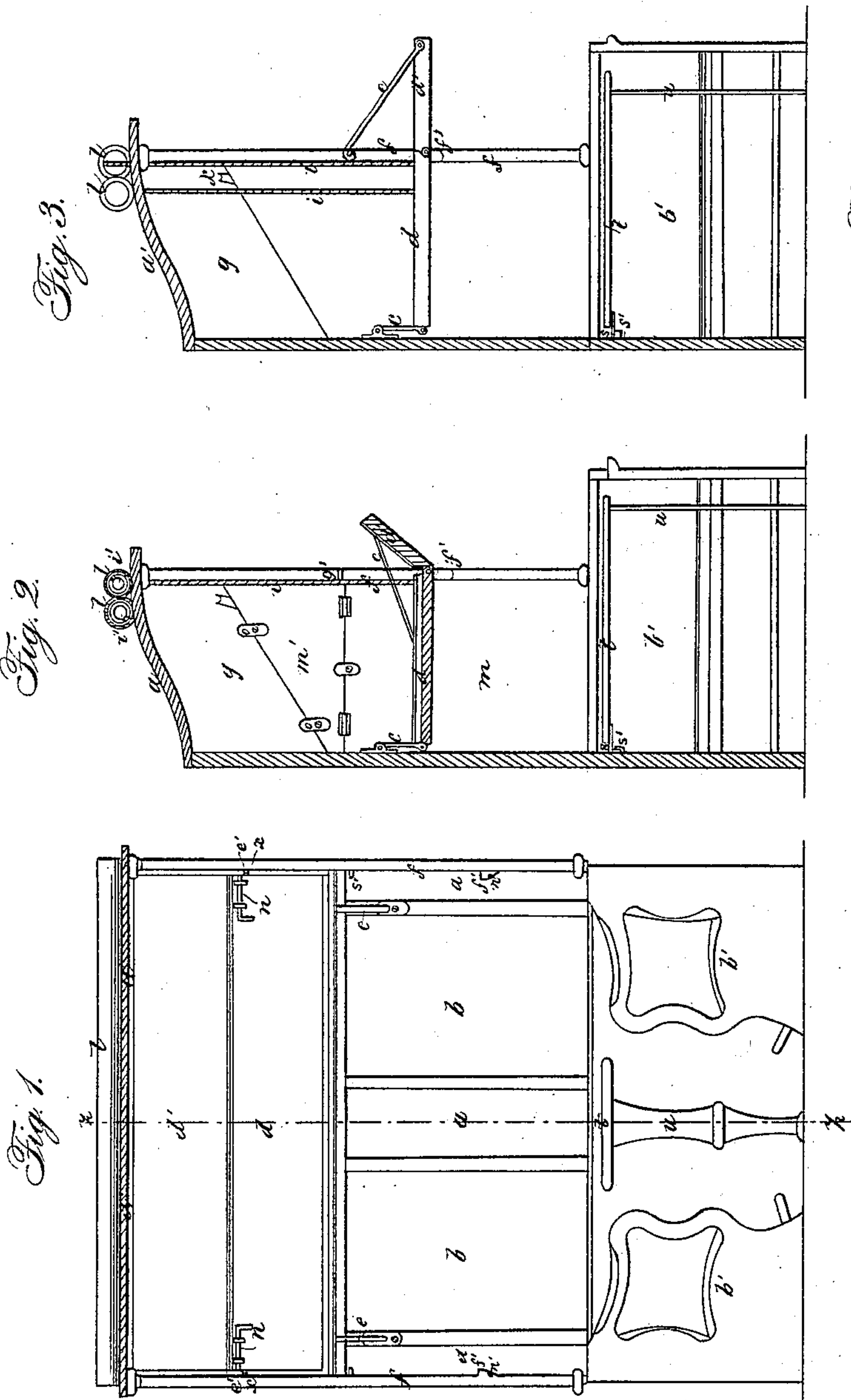


J. WOODRUFF.
Car Seat and Couch.

No. 71,258.

Patented Nov. 19, 1867.



Witnesses:

W. D. Lewis
W. Blewett

Inventor:

Jonah Woodruff
by his attorneys
Baker & Christy

UNITED STATES PATENT OFFICE.

JONAH WOODRUFF, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. **71,258**, dated November 19, 1867.

To all whom it may concern:

Be it known that I, JONAH WOODRUFF, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Sleeping-Cars for Railroads; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of one apartment of a sleeping-car furnished with my improvements. Fig. 2 is a vertical cross-section through $z z$, Fig. 1, showing the upper bed or berth lowered, but not fully opened out, and also showing the removable partition and table. Fig. 3 is a similar section without the partition, and with the upper bed or berth lowered and fully unfolded. Figs. 4 and 5 are face and edge views, respectively, of the removable partition.

My invention relates to the construction and arrangement of certain improvements in sleeping-cars for railroad travel, which consist in an improved double folding bed or berth for a second or upper tier; a removable partition by which to separate the tiers or rows of berths from each other, and so divide the car into compartments.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

$a a$ represent the side of a railroad-car; a' , the roof; b , the windows, and b' the seats, all of which may be of any known style or construction, except that the seats b' , as is usual in sleeping-cars, face each other by pairs, for convenience in arranging them to form a lower double bed.

To the side a of the car, and extending longitudinally therewith at a suitable height, I attach, by hinged hangers $c c$, a folding bed, $d d'$, of sufficient width when unfolded to form a double bed or berth, consisting of two leaves— d the inner one, and d' the outer one—which are hinged together so that the outer leaf, d' , will fold upward to a position nearly at right angles with the inner leaf, d , as shown in Fig. 2. The inner leaf, d , being attached to the side of the car by two or more hangers, $c c$, may be swung upward toward the roof of the car to a

height depending on the length of the hangers, but so as to give sufficient headway to the passengers sitting under it in day-time.

As shown in the drawings, the inner section, d , is of sufficient width to extend, when in a horizontal position, from the side a of the car to the post f , or about the breadth of the ordinary single berth; and the two sections or leaves $d d'$, when swung up, as shown in Fig. 1, form the bottom and front of a space which is inclosed at each end by the stationary parting-strips $g g$, Figs. 2 and 3, in which the bedding, linen, curtains, &c., used in a sleeping-car can be readily and conveniently stored, and where they will be easily accessible when needed. The leaves $d d'$ being hinged together when folded, as shown in Figs. 1 and 2, are held at the proper angle to each other by a rod, e , (shown in Fig. 2,) which rod e , when the bed is in use, hooks onto a pin, s' , in the post f , as shown in Fig. 3, and thus sustains the outer leaf, d' . One such rod e is required at each end of the bed, which is still further supported when in actual use by lugs e' , which drop into properly-shaped rests f' on the columns f . When unfolded and thus supported, the leaves $d d'$ make a comfortable, durable, convenient, and safe double bed.

The hangers c are of such length, and attached at such point on the side a of the car, as to drop the bed down as low as is desirable, and when the bed is folded and swung up, as shown in Fig. 1, to raise it clear of the window b , and out of the way of the occupants of the car. In this position it may be supported by cords i attached to spiral springs i' in the tubes l on the roof of the car, and also by the lugs e' dropping into rests x in the parting-strips $g g$.

The cords i , attached to springs as described, also aid in raising the bed to the position shown in Fig. 1, and are designed to act with sufficient force to balance the weight of the bed itself. Should the springs be too rigid, the bed is held down when in use by catches n sliding into notches n' in the rests f' or posts f .

To secure the utmost privacy in the sleeping-apartments at night, and at the same time permit the desired ventilation through the car during the day when the berths are not in use, I divide the berths from each other by loose removable partitions m , rigid, if so preferred,

or more commonly jointed, as shown in the drawings, so as to be folded together and stowed away under or back of the seats *b'*.

The partitions *m* extend from the top of car-seat backs *t* up to the parting-strips *g*. These parting-strips are fixed boards, extending from the roof of the car, between the several sections or compartments, down as far as the bottom of the upper bed, *d*, when elevated to the position it occupies when not in use. These parting-strips *g* serve not only to support the couch *d*, but also to inclose the space where the bedding is stowed in the day-time.

The movable partitions *m m'* are held in place by slides, catches, or buttons *o o*, which attach them to the parting-strip *g*. In connection with this partition *m*, as also for the purposes above set forth, I employ the posts or columns *f*, extending from the floor of the car or from the backs of the seats *b'* to the roof *a'*, one such post being situate at the division-line between each section of the sleeping-berths. Their effect is to add increased strength to the car, and keep the partition *m* more securely in its place. I thus provide for dividing a car into separate sleeping-apartments at night, and throwing it open during the day, if so desired.

The front of each apartment may be closed in the usual way by curtains, which, when not in use, I fold up and lay away with the bedding in the space inclosed by the roof of the car, by the couch *d d'*, and by the parting-strips *g g*, as above set forth.

The invention thus described possesses many advantages over the devices in ordinary use in sleeping-cars for such or similar purposes.

One upper double berth or bed, as I find in practice, is preferable to two single ones, partly on account of the comparative inaccessibility

of a third tier of berths, and also on account of the general undesirableness of a narrow single berth. A car thus furnished is more roomy, neat, and pleasant in every way than the common sleeping-car.

The curtains, during the day, are entirely removed from sight; and the bed *d d'*, folded and swung up to the position shown in Fig. 1, gives a neat appearance to the car, and when nicely ornamented on its under side adds additional neatness and finish to the car.

The tubes *l*, with their spiral springs *v*, I attach to the roof of the car, as there they are convenient for use, and are entirely out of the way.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A double couch or berth for the upper tier in a sleeping-car, consisting of two leaves so hinged together that the outer leaf folds upward, and the inner leaf being attached to the side of the car by hangers *c c*, so that the couch thus formed may be folded and swung up toward the roof of the car, substantially as hereinbefore described.

2. A detached and removable partition, *m*, when so constructed as to divide the space occupied by the berths of a sleeping-car into separate compartments at night, and to be removable by day, so as to permit the free passage of air through the car, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I, the said JONAH WOODRUFF, have hereunto set my hand.

JONAH WOODRUFF.

Witnesses:

A. S. NICHOLSON,
W. BAKEWELL.