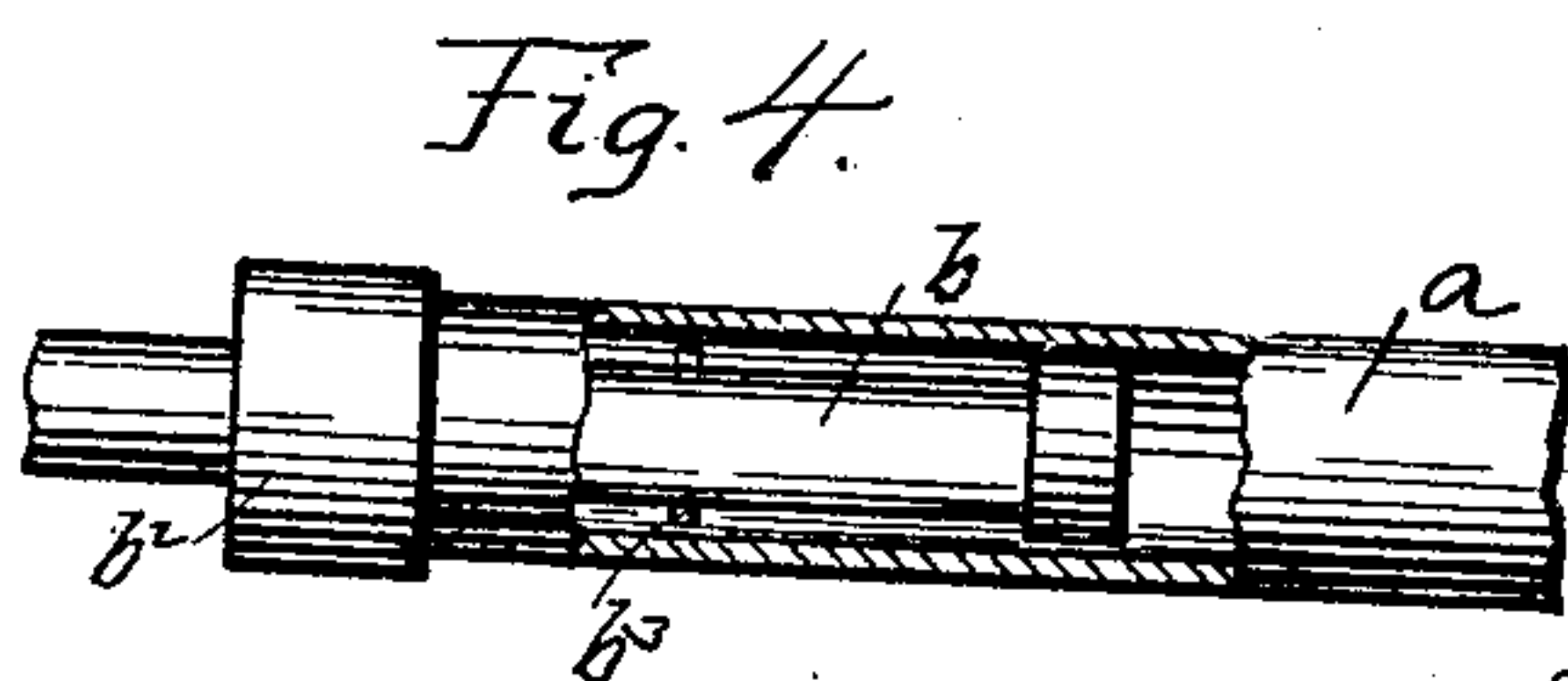
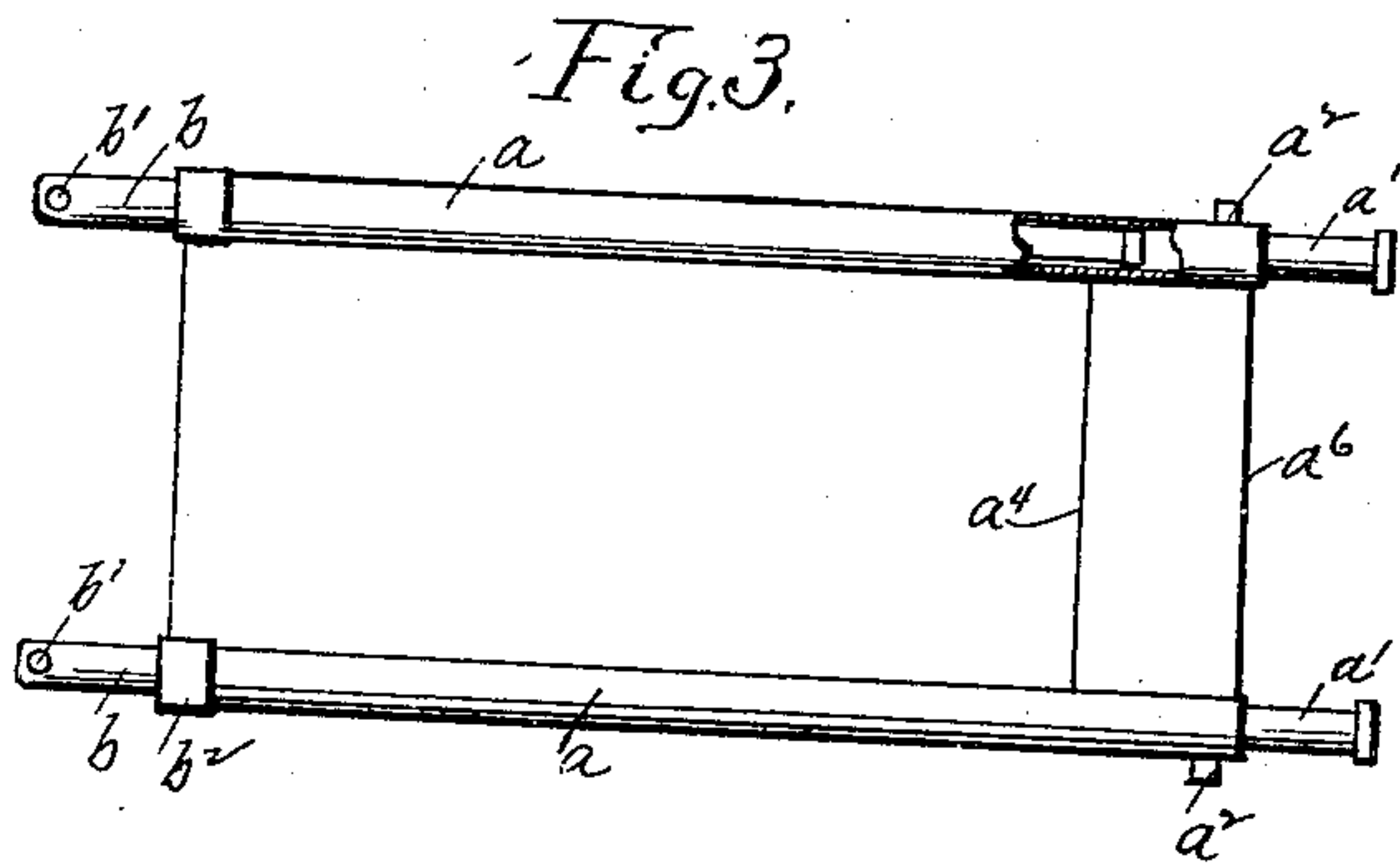
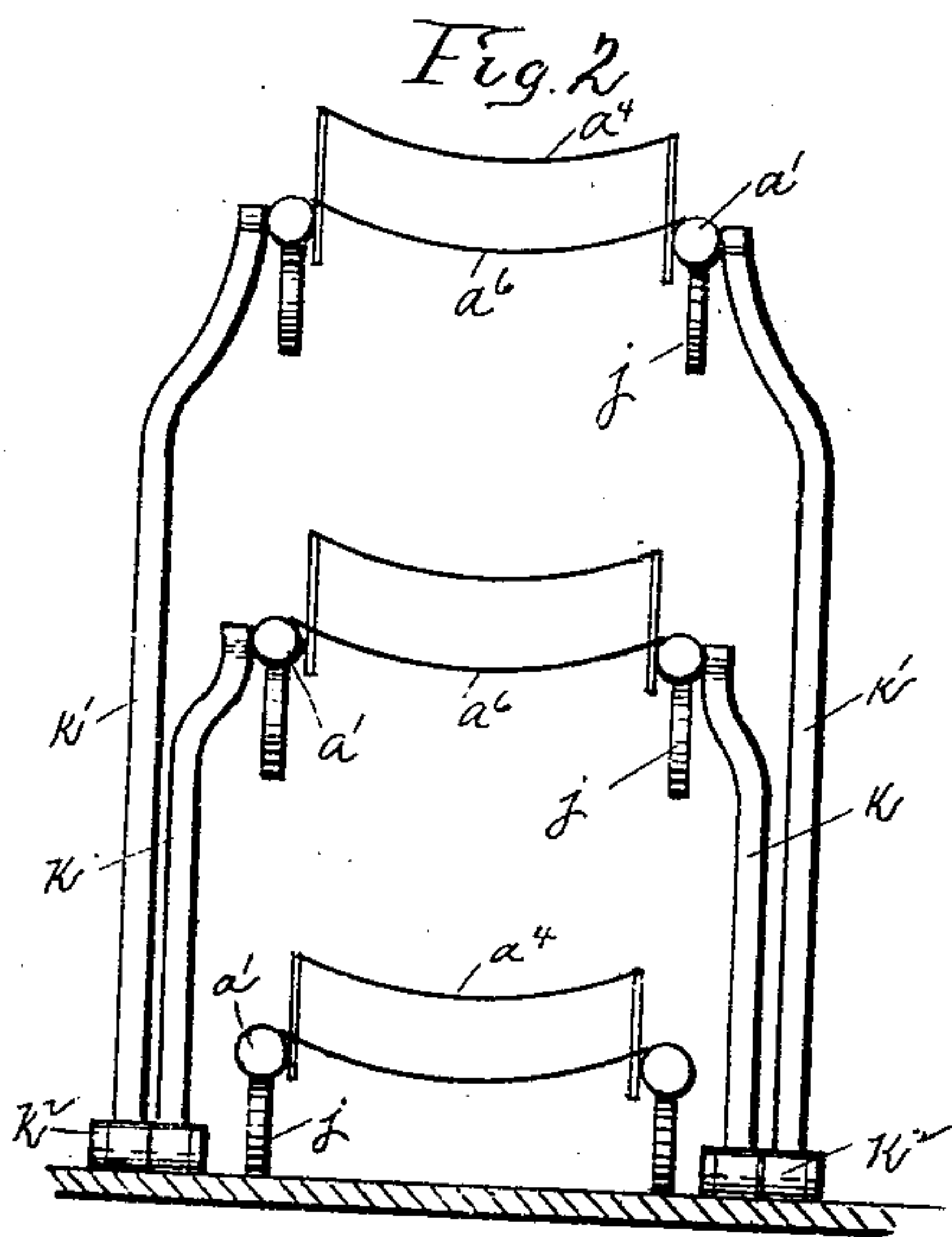
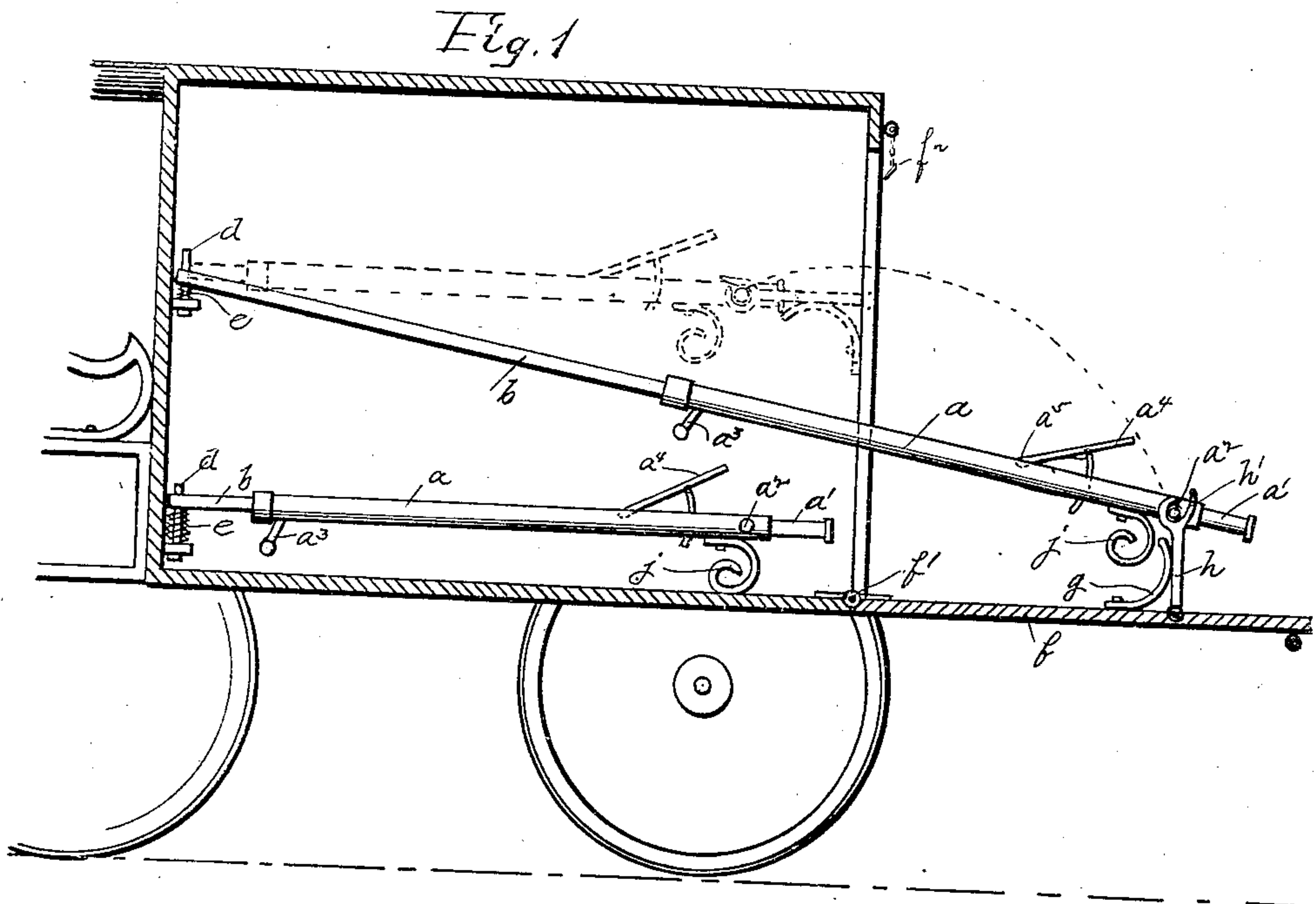


954,760.

W. VON OETTINGEN.
AMBULANCE.
APPLICATION FILED MAY 24, 1909.

Patented Apr. 12, 1910.
2 SHEETS—SHEET 1.

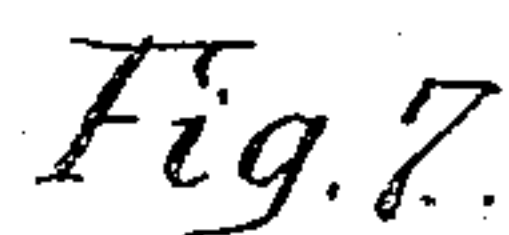
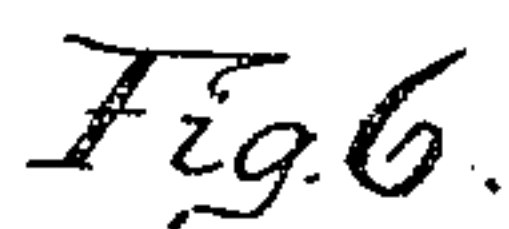
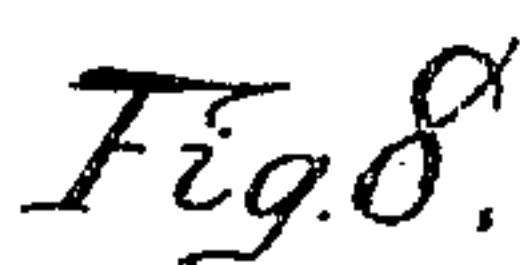
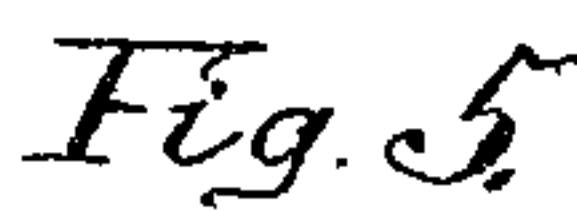


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APPLICATION FILED MAY 24, 1909.

Patented Apr. 12, 1910.
2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WALTER VON OETTINGEN, OF WILMERSDORF, BERLIN, GERMANY.

AMBULANCE.

954,760.

Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed May 24, 1909. Serial No. 497,830.

To all whom it may concern:

Be it known that I, WALTER VON OETTINGEN, a citizen of Germany, residing at Wilmersdorf, Berlin, in the Empire of Germany, have invented certain new and useful Improvements in Ambulances, of which the following is a specification.

The present invention relates to conveyances for invalids, victims of accident, and the like, and has for its particular object the provision of means whereby physically incapacitated persons may be transported with the least discomfort and danger to themselves, and with the greatest facility as to the attendants necessary. The handling of sick and wounded persons is attended with especial difficulty when two or more such persons are to be placed in one ambulance, as is the case in time of war or epidemic. It is sometimes necessary to place the patients in tiers one above another in the ambulance, and this gives rise to problems in the loading and unloading which are not ordinarily present.

My invention, as particularly set out in the claims, will be readily understood from the following description taken in connection with the accompanying drawing in which—

Figure 1 is a vertical longitudinal section of an ambulance fitted with one embodiment of the invention; Fig. 2 is an end elevation of a modification; Fig. 3 is a plan of the stretcher; Fig. 4 is a fragment of the stretcher; Fig. 5 is a sectional view showing in elevation a modified form of mounting; Fig. 6 is an end elevation of another modification; Fig. 7 is a fragmentary detail view; and Fig. 8 is a detail of a spring support.

Referring to the drawing in detail, the stretcher is constructed of tubular side members or rails a arranged to telescopically receive the side rods b . The rails a terminate at the head of the stretcher in handles a' and are provided adjacent thereto with laterally extending lugs or studs a^2 , and near the ends with legs a^3 . A head rest a^4 is arranged to be adjustably positioned about the pivotal point a^5 . The body of the stretcher at a^6 may be of canvas or the like.

The side rods b slide within the rails a of the stretcher frame, and at their outer ends are perforated, as at b' , or otherwise arranged to engage a suitable hanger on the front inner wall of the vehicle c , which latter may be of any suitable construction. In

the present case, I have shown vertically extending pintles d arranged to enter the perforations b' , and surrounded by a coiled compression spring e , whereby the rods are yieldingly supported and all jar absorbed. The pintle d may be substituted by a pintle d' housed within the casing d^2 and supported by the coiled spring e' as shown in detail in Fig. 8.

At the rear of the ambulance, a downwardly swinging support is arranged (in this case the door f) hinged at f' and provided at f^2 with a suitable latch or other securing device whereby accidental dropping is guarded against.

A leaf spring g , secured to the door, bears against a standard or bracket h mounted on the door and having at its free end a crotch h' to receive the studs a^2 of the frame.

The manner of use is as follows: When the stretcher containing the patient is brought to the ambulance, the swinging support f is lowered, the side rods b are drawn out of the rails a and slipped over the pintles d , while the studs a^2 are placed after the manner of trunnions in the crotches h' , the stretcher then occupying the position shown in full lines in Fig. 1 of the drawing. The support or door f is then lifted to close the same in the direction of the arrow, the rods b telescoping within the rails a , and the stretcher gradually and smoothly approaching the position shown in dotted lines in the upper part of the figure. Thereupon, the door being closed or the support elevated to the fullest extent and locked with the latch f^2 , the weight of the stretcher and its occupant is borne at the head by the leaf springs g and at the foot by the coiled springs e . To unload the patient and stretcher, the described steps are reversed, as will be readily understood.

Each side member a of the stretcher frame is preferably closed by a cap b^2 having a central opening to receive the side rods b , the inner end of which carries a similar cap which slides within the rail a . A pin b^3 passing transversely through the rod b serves to define the extent to which the rod may be withdrawn from the rail a by striking against the cap b^2 .

Instead of providing the stretcher with the usual rigid legs at the head, there may be furnished spring legs j , in which case the stretcher is also adapted to be placed in the

bottom of the ambulance as shown in the lower part of the figure, where the foot is supported, as in the former case, by the springs *e* and the head by the springs *j*, no bracket being in this case necessary.

As stated above, instead of the door of the ambulance being employed as a swinging support for the head of the stretcher, special provision may be made for that purpose and it may be solid as in the case of the door or of skeleton construction. A special support is advantageous, where more than two stretchers are to be placed in a tier, in which case their supports should be independently operable.

By using a stretcher embodying this invention, a stretcher or litter of the usual construction can be laid thereon and all the described advantages obtained without shifting the patient from one to the other.

It will be clear that the present invention, in its provision for supporting the stretchers in their elevated position, has advantages from the standpoint of safety and comfort, over suspending ropes, chains or other oscillating supports. Moreover, the handling of the sick or otherwise disabled is greatly facilitated, two persons being able with ease to place a patient in an ambulance and position him in a tier above other patients without difficulty. The invention has its advantages, also, in that it can be readily installed, the only alterations necessary to transform an ordinary conveyance into a comfortable ambulance for use with this form of stretcher being the placing of the pintles *d* and the brackets *h*. In case of emergency a van or railway coach could speedily be adapted for loading and transporting sick or wounded in comfort. The stretchers, themselves, are light, simple and of inexpensive construction, and a complete equipment of stretcher and ambulance fittings, pintles and brackets, would entail small outlay in the case of institutions already fitted out with old forms of apparatus.

Having thus fully described my invention and the manner of its use, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. A stretcher comprising a longitudinally extensible frame, in combination with a conveyance, and hangers therein movable one toward the other adapted to engage the two ends of the stretcher.

2. A stretcher comprising a longitudinally extensible frame, in combination with a conveyance, and hangers therein adapted to engage the two ends of the stretcher, said hangers being movable one toward the other in a vertical plane and along an ascending line.

3. The combination, with an extensible stretcher, of a conveyance provided with hangers adapted to engage the two ends of

the stretcher, said hangers being movable one toward the other in the arc of a circle in a vertical plane.

4. The combination, with an extensible stretcher, of a conveyance, a hanger mounted at the front end of the conveyance to engage one end of the stretcher, and a hanger mounted at the rear end of the conveyance to engage the other end of the stretcher and to swing therewith toward the forward hanger to extend and contract the stretcher.

5. The combination, with an extensible stretcher, of a conveyance, a hanger fixed at the front end of the conveyance to engage and support one end of the stretcher in its extended position, and a hanger mounted at the rear end of the conveyance to engage and support the other end of the stretcher and to swing therewith toward the fixed support in the arc of a circle in a substantially vertical plane to extend and contract the stretcher.

6. The combination, with an extensible stretcher, of a conveyance, a spring hanger fixed at the front end of the conveyance to engage and support one end of the stretcher in its extended position, and a spring hanger pivotally mounted at the rear end of the conveyance to engage the other end of the stretcher and to swing therewith toward the fixed support in an ascending direction to extend and contract the stretcher.

7. The combination with a stretcher, of a conveyance, a spring hanger fixed at the front end of the conveyance to receive and support the front end of the stretcher, and a spring support for the other end of the stretcher, said second support being movable toward and from the first to extend and contract the stretcher.

8. The combination with a stretcher, of a conveyance, a spring hanger fixed at the front end of the conveyance to receive and support the front end of the stretcher, and a spring support for the other end of the stretcher, the stretcher being extensible and the supports at the two ends being movable one toward and from the other in a vertical plane along an ascending line.

9. The combination, with an extensible stretcher, of a conveyance, a spring hanger fixed at the front end of the conveyance to receive and support the front end of the stretcher in its extended position, a swinging member pivoted below at the other end of the conveyance to swing in a vertical plane, a hanger carried by the swinging member and adapted to engage and support the rear end of the stretcher, whereby to extend and contract the stretcher and simultaneously to lower and to elevate the same, and means to secure the swinging member in its elevated position.

10. The combination, with an extensible stretcher provided at one end with laterally

extending studs and at the other end with
perforations, of a conveyance, pintles fixed
at the front end of the conveyance to enter
the perforations, springs underlying the
5 stretcher about the pintles, a vertically
swinging door at the rear of the conveyance,
a bracket pivoted on the door to extend
inwardly therefrom, said bracket arranged
to receive the studs at the other end of the
10 stretcher, a spring to bear against the
bracket, and means to secure the door in its
closed position.

11. A stretcher comprising an extensible
frame comprised of telescopic side members,
and a vehicle provided with relatively mov- 15
able hangers adapted to engage the ends of
the side members to extend and contract the
stretcher.

In testimony whereof, I affix my signature
in the presence of two witnesses.

WALTER VON OETTINGEN.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.