

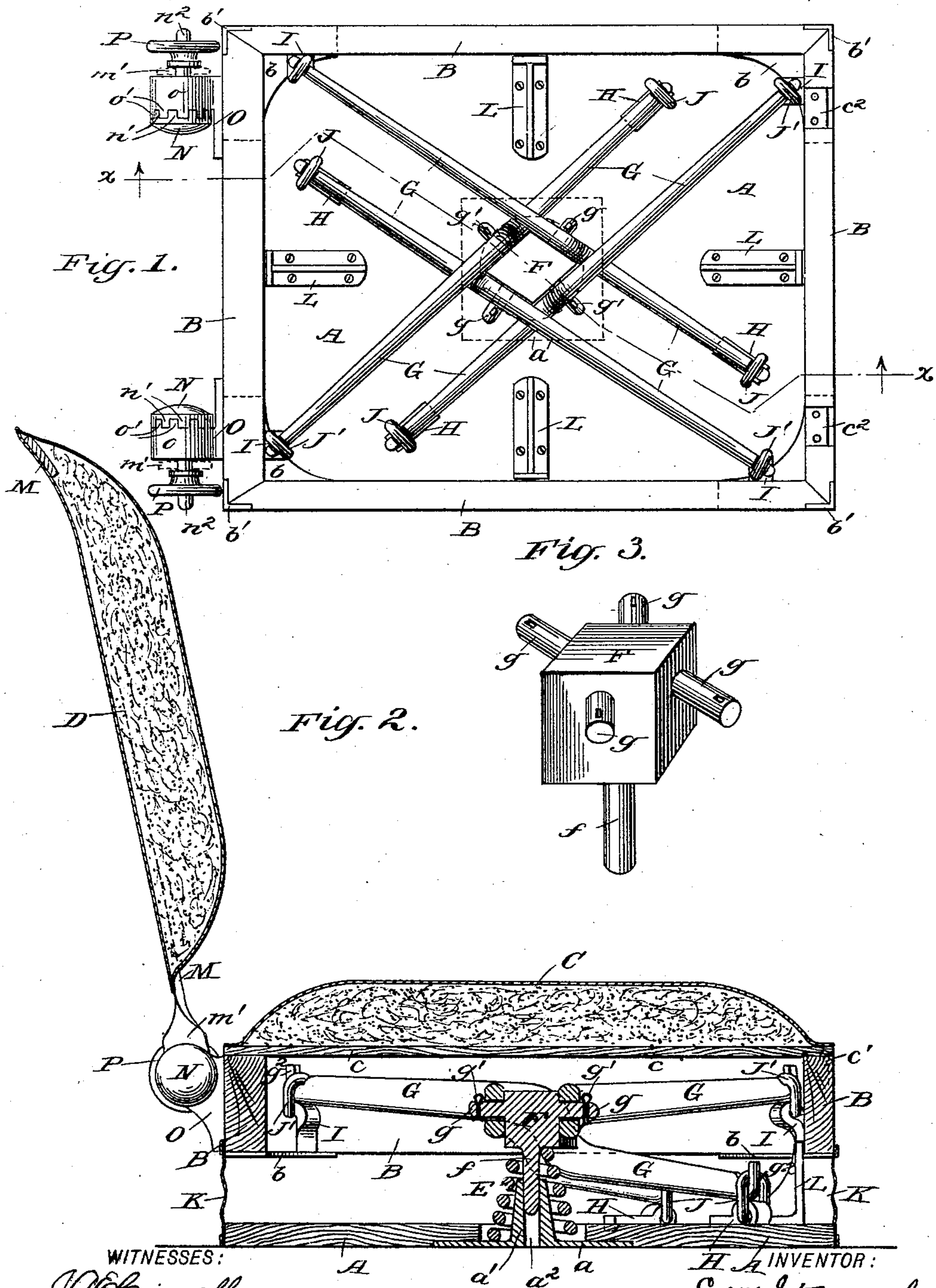
(No Model.)

2 Sheets—Sheet 1.

E. M. STANNARD.
LOCOMOTIVE CAB SEAT.

No. 444,654.

Patented Jan. 13, 1891.



WITNESSES:
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C. Sedgwick

INVENTOR:
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ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

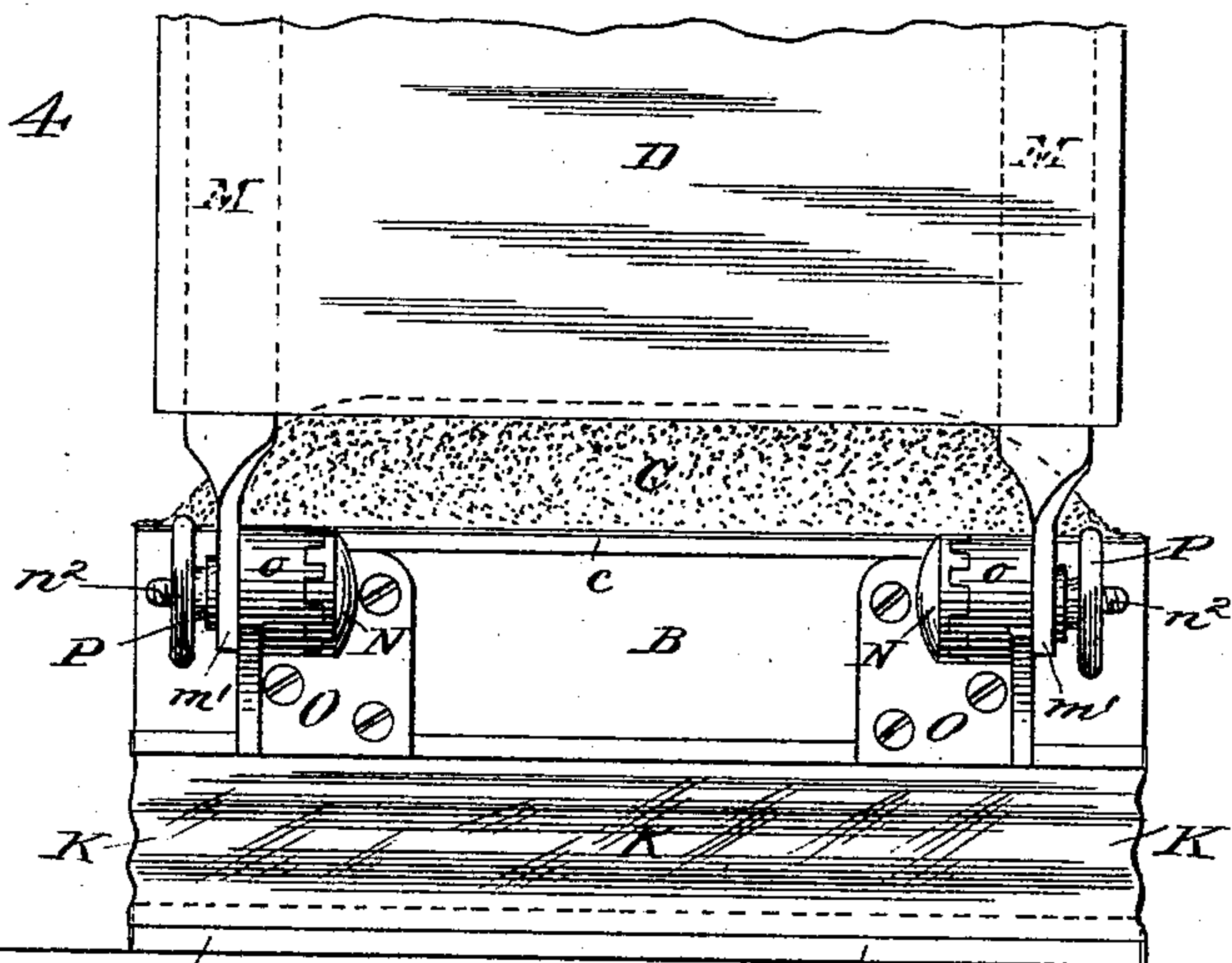


Fig. 7.

Fig. 5.

Fig. 6.

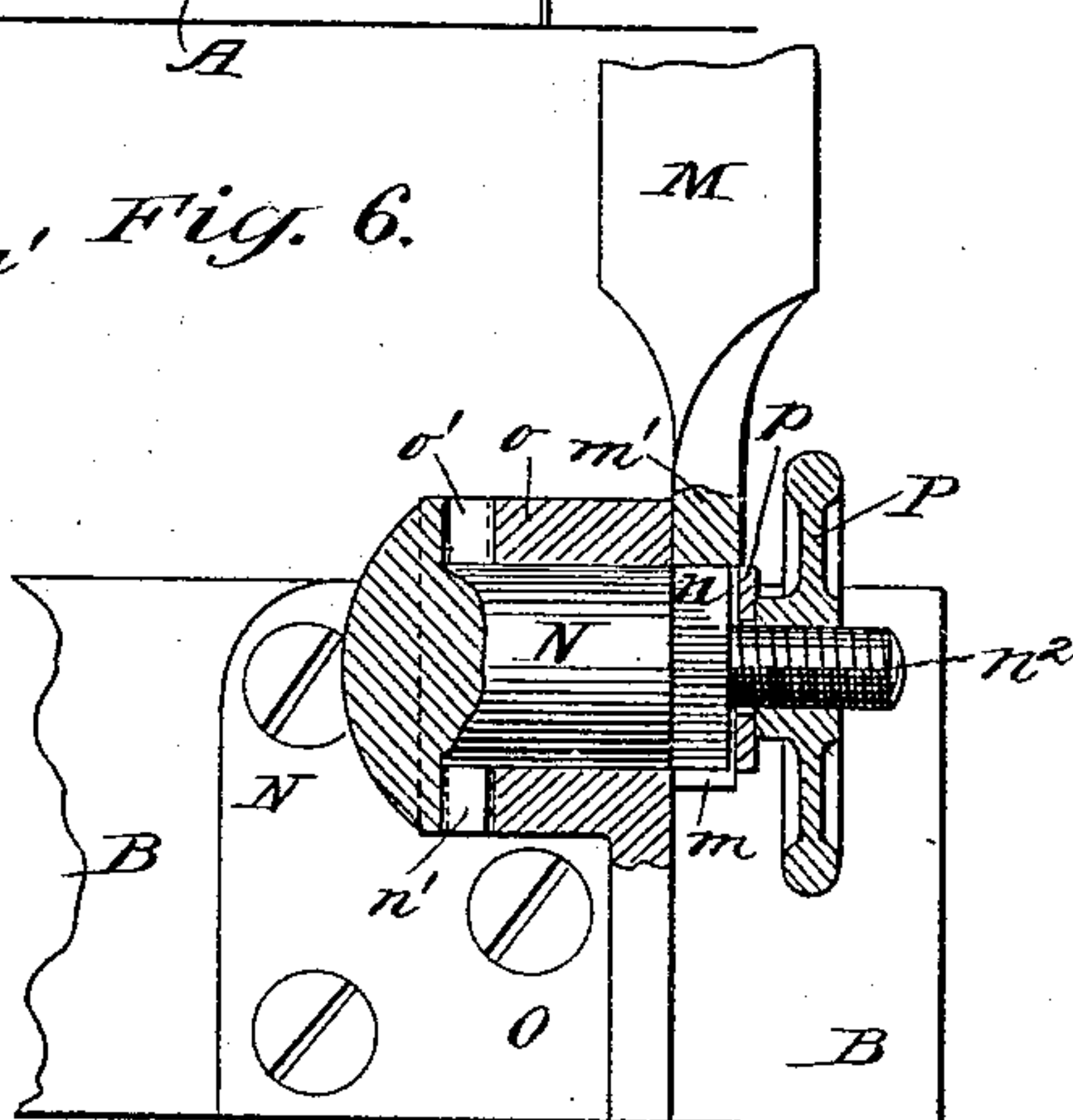
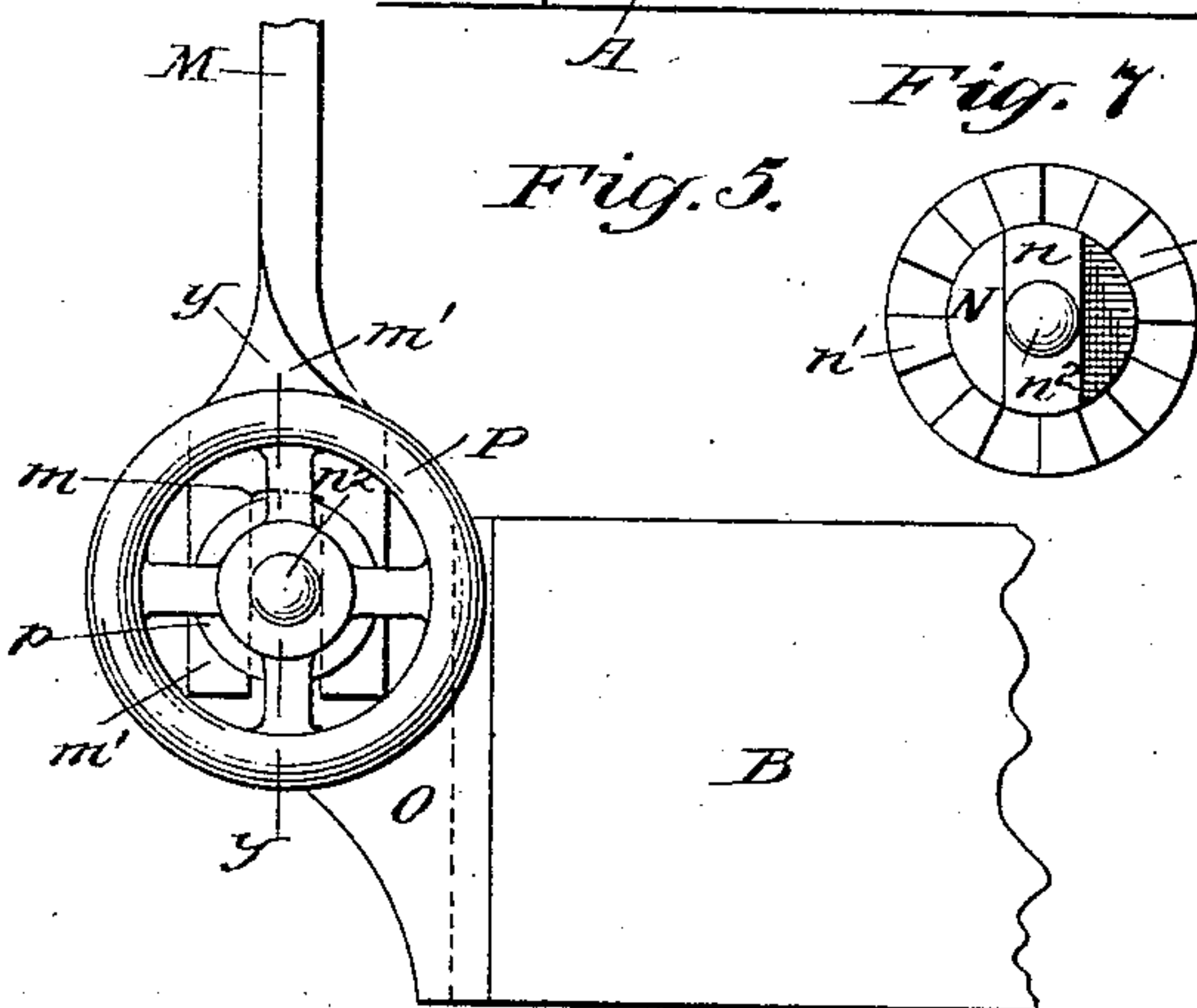


Fig. 8.

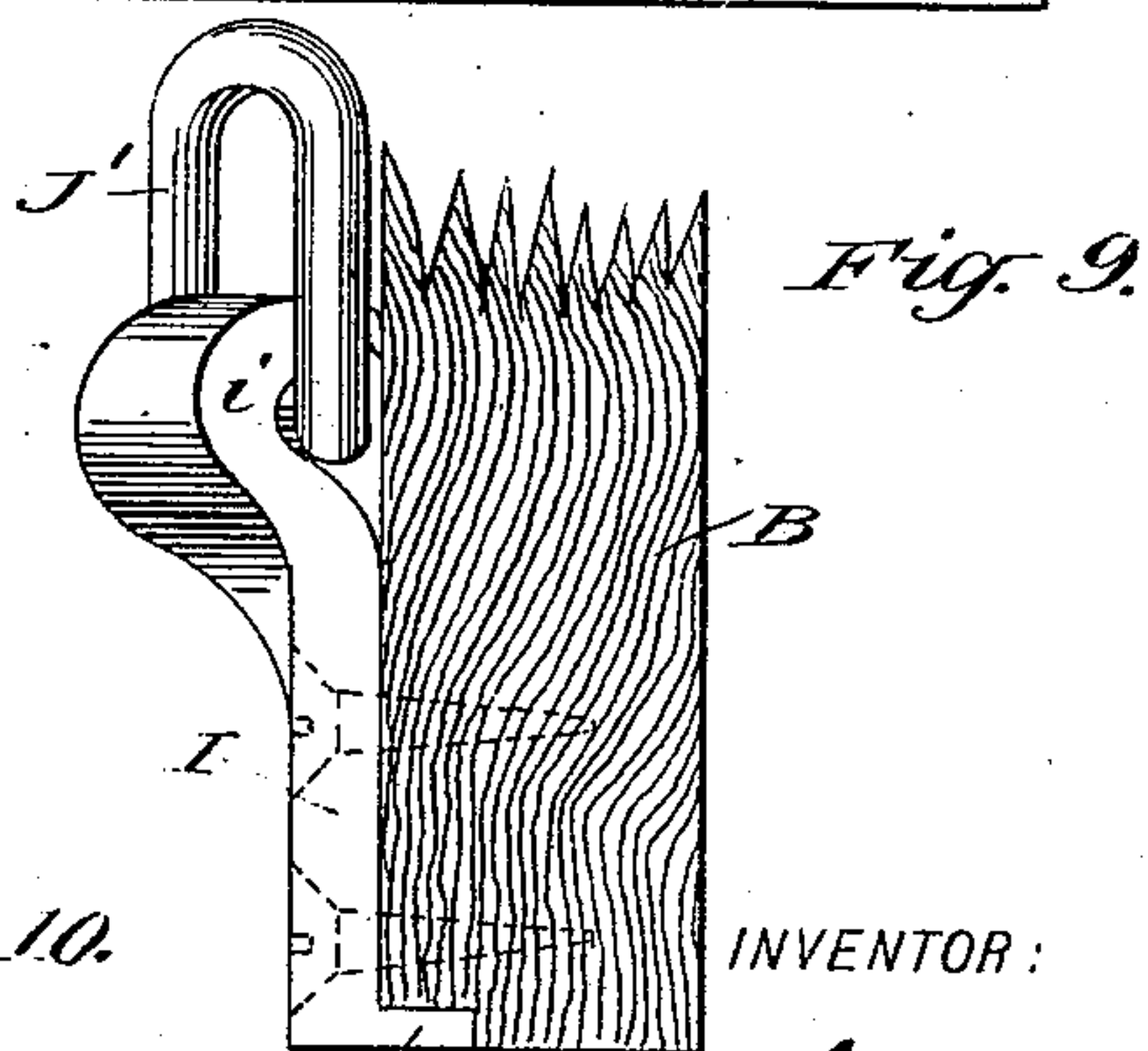
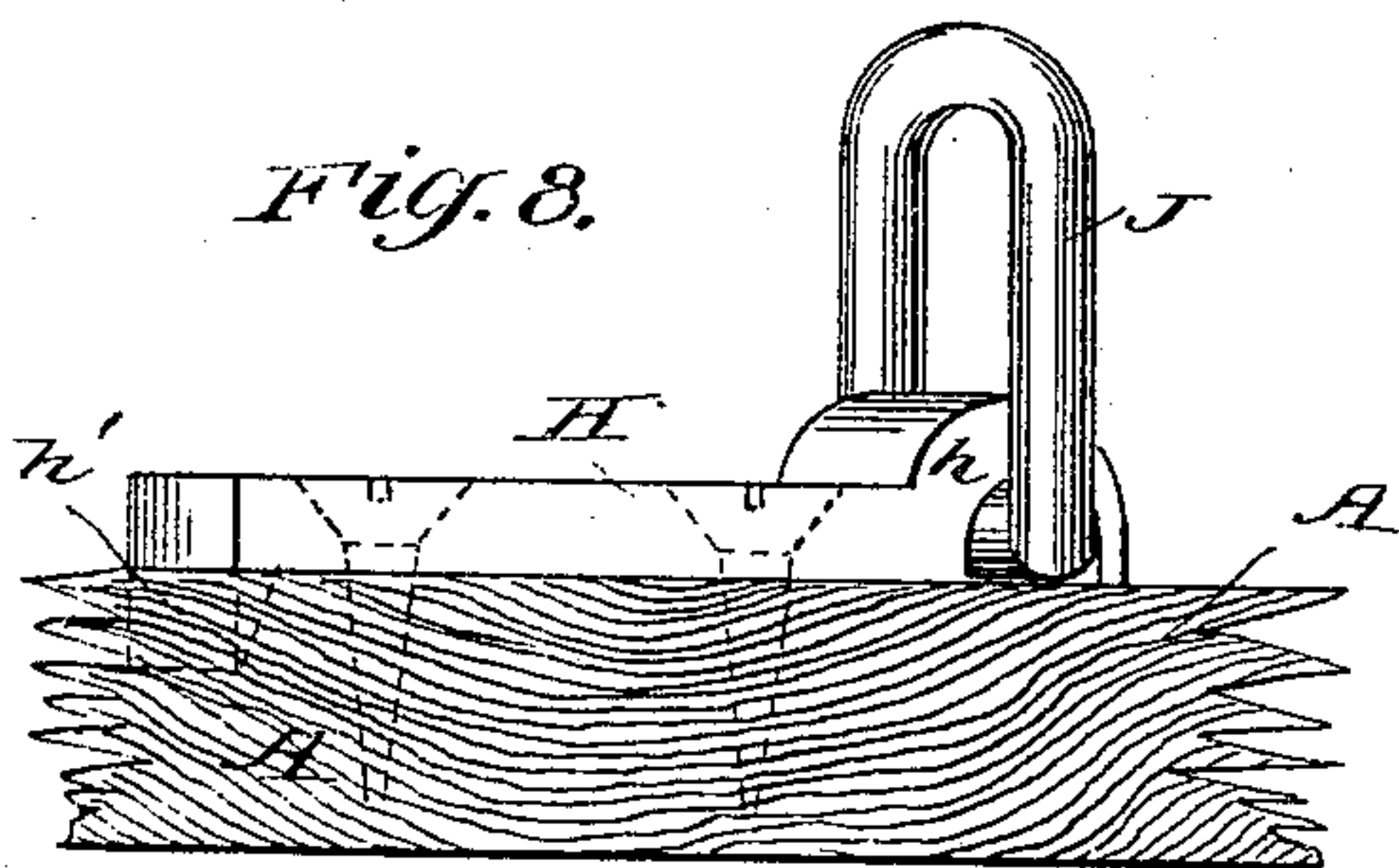
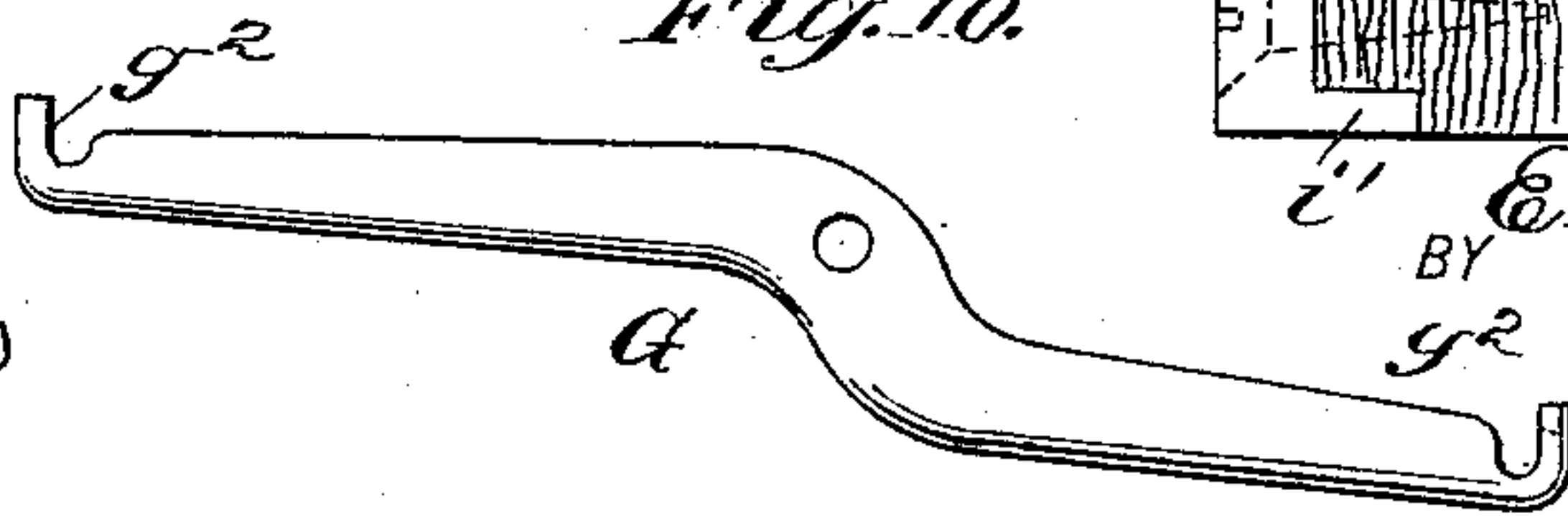


Fig. 10.



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UNITED STATES PATENT OFFICE.

EDWARD M. STANNARD, OF APPLETON, WISCONSIN.

LOCOMOTIVE-CAB SEAT.

SPECIFICATION forming part of Letters Patent No. 444,654, dated January 13, 1891.

Application filed March 22, 1890. Serial No. 344,918. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. STANNARD, of Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and Improved Locomotive-Cab Seat, of which the following is a full, clear, and exact description.

My invention has for its object to provide a simple, portable, inexpensive, and comfortable seat for the engineer of a locomotive which will relieve him of the jolting motions of the engine.

The invention consists in certain novel features of construction and combinations of parts of the seat or yielding-platform structure, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the seat-frame and base-plate and connected parts of my improvement, the seat cushion and back being removed. Fig. 2 is a vertical sectional side view of the complete cab-seat, the section being taken on the line $x x$ in Fig. 1. Fig. 3 is a perspective view of the lever-fulcrum head-block of the seat. Fig. 4 is a rear view of the lower portions of the cab-seat. Fig. 5 is a side view of the connection of the seat frame and back. Fig. 6 is a vertical sectional view thereof, taken on the line $y y$ in Fig. 5. Fig. 7 is an outer end view of the back-connection fulcrum clutch-bolt or bearing-pin. Fig. 8 is an enlarged or full-size view of the coupling which connects the levers to the seat-base. Fig. 9 is a full-size view of the coupling which connects the levers to the seat-frame, and Fig. 10 is a side view of one of the seat-levers.

My improved locomotive-cab seat, in the preferred style, is made with a base A, a frame B, supported yieldingly above it, an upholstered seat proper C on the frame, and an upholstered back D, adjustably connected or coupled to the back of the seat-frame.

The seat-base A is preferably made of wood, and in the preferred construction it is centrally apertured and cut away or mortised at the bottom to receive a metal plate a , which has an upwardly-projecting boss a' , around which is placed a suitable spring E, of either

spiral or volute form, which rests on the plate and projects above the boss sufficiently to yieldingly or elastically support a metal block F, which has a downwardly-projecting stem or pin f entering and sliding vertically in a hole a^2 of the boss a' of the plate a . This part F, which I call the "lever-fulcrum head-block," has a body portion having six flat faces preferably disposed to give it a rhomboidal general form, and from each side face projects horizontally a pin g , which forms the fulcrum of a lever G, which is coupled at one end to the base A and at the other end to the seat-frame B. The four levers G G G G are arranged in two parallel pairs connected at opposite ends with the base and seat-frame, respectively, one pair of levers being crossed by the other pair, as most clearly shown in Figs. 1 and 2 of the drawings. Suitable cotter or other pins g' hold the levers thereon and snugly to the faces of the head-block. The levers have the general form shown in Fig. 10 to allow them to cross or to be crossed by each other, and have end hooks g^2 .

The levers G may be coupled to the seat base and frame in any approved manner, allowing them to work freely as the seat proper moves up or down upon its sustaining-spring E. A very simple and desirable coupling for connecting the levers to the base A consists of a metal plate H, which is formed at one end with an eye or half-eye h , which confines loosely a metal link J, with which one hooked end g^2 of the lever engages, and a very good coupling for connecting the levers to the seat-frame B consists of a metal plate I, having a twisted or inclined eye or half-eye i , which confines a like metal link J', which engages the other hooked end g^2 of the lever. The coupling plates or castings H I have projecting lugs or lips $h' i'$, respectively, which enter or lap onto the wood of the base and seat-frame and re-enforce the holding-power of the screws which fasten the plates in place. (See Figs. 8 and 9 of the drawings.)

The wooden seat-frame B is preferably re-enforced at the corner-joints by horizontal metal plates b , applied preferably at the lower edge of the frame, and also by vertically-ranging angle irons or plates b' , applied at the corners of the frame and preferably let

in flush with its outer faces. (See Figs. 1 and 2 of the drawings.)

I secure to the seat-base A and the frame B the opposite edges of a flexible oiled cloth 5 or other suitable fabric K, which excludes dust and dirt which otherwise would pass to the interior mechanism of the seat, and will yield or double upon itself more or less as the seat proper lowers by the weight on it or rises 10 again as the weight allows or during vertical motion of the seat, due to the jolting of the locomotive, on the inside cab-box of which the seat is supported by its base A. Access is, however, freely given to the lever head- 15 block and spring mechanism by hinging the board or foundation-piece c of the upholstered seat to one side of the seat-frame B, preferably its front side, and by ordinary butt-hinges c', let in flush with the frame at recesses c² c² thereof. (Shown in Fig. 1 of the 20 drawings.)

I provide a series, preferably four, of upright guides L, which are shown as brackets 25 fixed to the base-board or platform A and rising at the inside of the seat-frame B, one at each side thereof. These guides or guards prevent swaying or pitching of the seat proper to either side or from front to back, while allowing free vertical yielding or play of said 30 seat. The guides may have any other suitable form, providing they prevent swaying or pitching of the seat proper as it rides easily upon the levers, head-block, and spring.

As thus far described the cab-seat would 35 be complete without a back; but I prefer to provide the adjustable back D, which may be set at any desired most comfortable incline, or may be quickly removed at pleasure to allow packing the seat into small compass, 40 or to be entirely out of the way of the reversing-lever of the locomotive when it is used as a shifting or siding engine while yarding cars or making up trains.

The upholstery of the seat-back D has a 45 board or other foundation which includes opposite metal side pieces, preferably made as parts of an arched and elastic or yielding steel frame M, which for the most part stands flatwise in the plane of the back, but has 50 lower ends m' m' twisted one-quarter around and forked or each provided with a vertical slot m, which straddles a squared or flat-sided lug n, formed at the outer part of a clutch-pin N, which is journaled in a bossed bearing 55 plate or bracket O, which is secured by screws or otherwise to the back of the seat-frame B. The boss o of the bearing-plate O is provided with a face or rose clutch or half-clutch o', which is adapted to be engaged by 60 a corresponding half-clutch n', formed on the inner face or shoulder of the head of the clutch-pin. This pin or journal-bearing N is also provided on the outer face of its lug n with a screw or bolt end n², which is adapted 65 to receive a clamp nut or wheel P, which may be turned in against the forked ends m' of the steel frame M, or against an interposed

washer p, to bind the seat-back fast at any desired adjustment.

To adjust the seat-back to a different in- 70 clination, it is only necessary to turn back the set-screw or nut-wheel P at each bearing O far enough to allow the two journal-bearings N N to be slipped inward or toward each other sufficiently to disengage their clutches 75 n' n' from the clutches o' o' of the bearings O O, whereupon the seat-back, with its steel frame-forks m' m' yet engaging the studs n n of the journals N N, which move with it, may be inclined more or less or readjusted 80 to the desired position, and the nuts or wheels P P will then be turned to draw the clutches again into engagement and also bind the seat-back frame or bar M securely to the 85 brackets O. To remove the back from the seat proper, it is only necessary to slacken the nuts or wheels P on the bolt ends n², which allows the back-frame forks m' to be lifted from the studs of the journals N, as will readily be understood. 90

It is manifest that the base and frame portions A B, together with the equalizing-levers G and the fulcrum head-block F and spring E, are not limited to use as a locomotive-cab seat, as the same may be used as a 95 platform-spring for vehicles, or as a weighing apparatus, or for other purposes.

Having thus described my invention, I claim as new and desire to secure by Letters 100 Patent—

1. A seat or yielding-platform structure comprising a supporting-base, a superposed yielding frame or part, a spring on the base, a head-block or support sustained by the 105 spring, and crossed levers fulcrumed to the head-block and coupled at opposite ends to the base and superposed frame.

2. A seat or yielding-platform structure comprising a supporting-base, a superposed yielding frame or part, a spring on the base, 110 a head-block or support sustained by the spring, crossed levers fulcrumed to the head-block and coupled at opposite ends to the base and superposed frame, and a flexible dust-guard connecting said base and frame. 115

3. A seat or yielding-platform structure comprising a supporting-base, a superposed yielding frame or part, a spring on the base, a head-block or support sustained by the 120 spring, and two pairs of crossed levers fulcrumed to the head-block and coupled at opposite ends to the base and superposed frame.

4. A seat or yielding-platform structure comprising a supporting-base, a superposed yielding frame or part, a spring on the base, 125 a head-block or support sustained by the spring, crossed levers fulcrumed to the head-block and coupled at opposite ends to the base and superposed frame, and guides on the base for said frame. 130

5. The combination, in a seat or yielding-platform structure, of a base, a bearing thereon, a spring fitted around said bearing, a head-block having a guide-pin entering the

bearing and resting on the spring, and crossed levers fulcrumed to the head - block and coupled at opposite ends to the base and superposed frame, substantially as described.

- 5 6. The combination, in a seat or yielding-platform structure, of a supporting-base, a central apertured bearing, a spring and vertical guides on the base, a superposed yielding frame fitted to the guides, a head-block
10 F, resting on the spring and having a stem *f* entering the central base-bearing, two pairs of crossed levers G G, fulcrumed to the head-block, and couplings connecting the opposite ends of the levers to the base and yielding
15 frame, respectively, substantially as specified.

7. In a seat comprising a seat proper and a back, the seat-frame provided with bearings having a half-clutch, combined with the back having forked extremities, and journals adapted to the bearings and having a corresponding half-clutch, and provided also with a stud to which the forked end of the back is adapted, said journals also having an end screw and a nut adapted to said screw and to clamp the clutched back, substantially as described. 25

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Witnesses:

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