

No. 813,249.

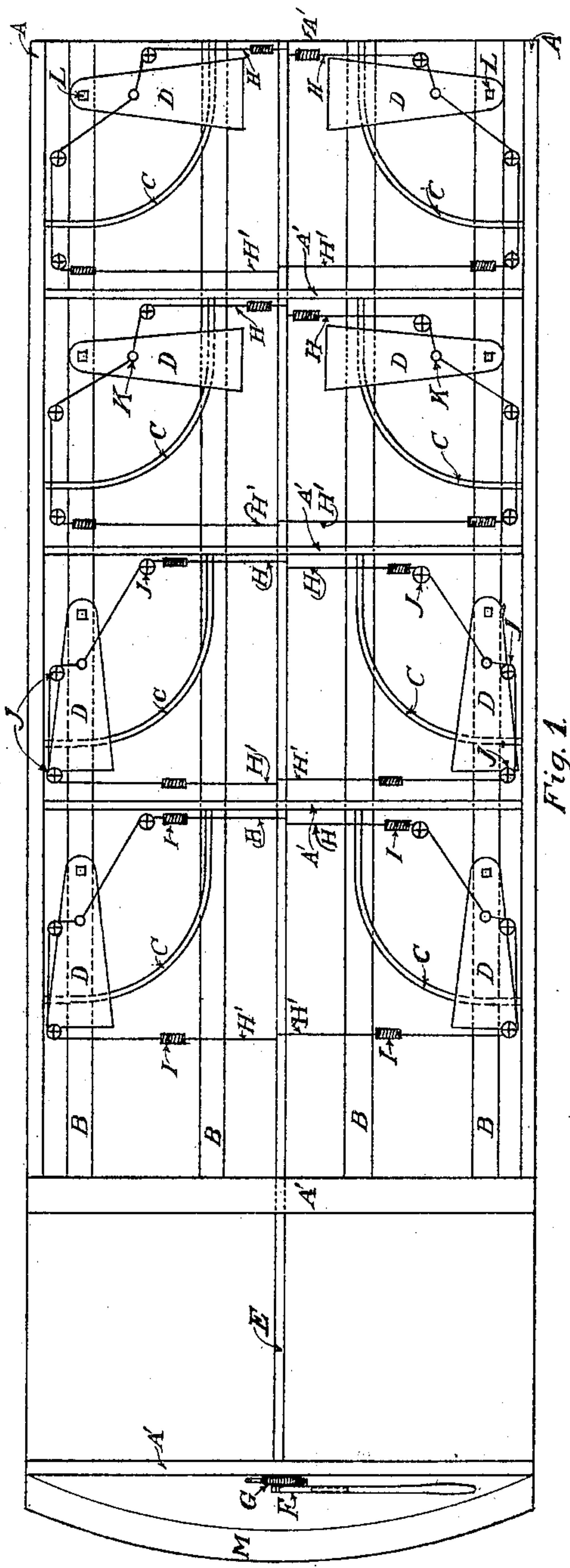
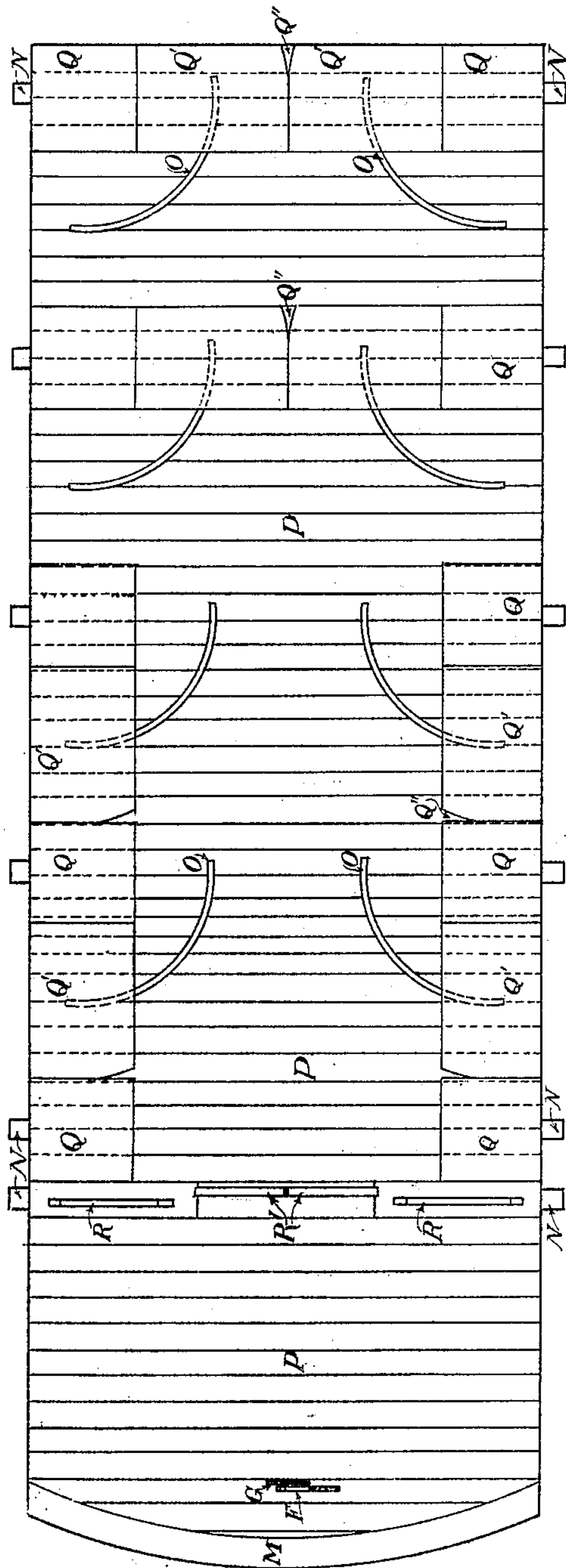
PATENTED FEB. 20, 1906.

F. E. STANLEY & J. L. GILLMORE.

CONVERTIBLE CAR.

APPLICATION FILED SEPT. 13, 1904. RENEWED AUG. 12, 1905.

3 SHEETS—SHEET 1.



Witnesses:
D. H. DeCan
R. B. Stuart

Inventors
Frank E. Stanley
John L. Gillmore
By Victor J. Evans
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3 SHEETS—SHEET 2.

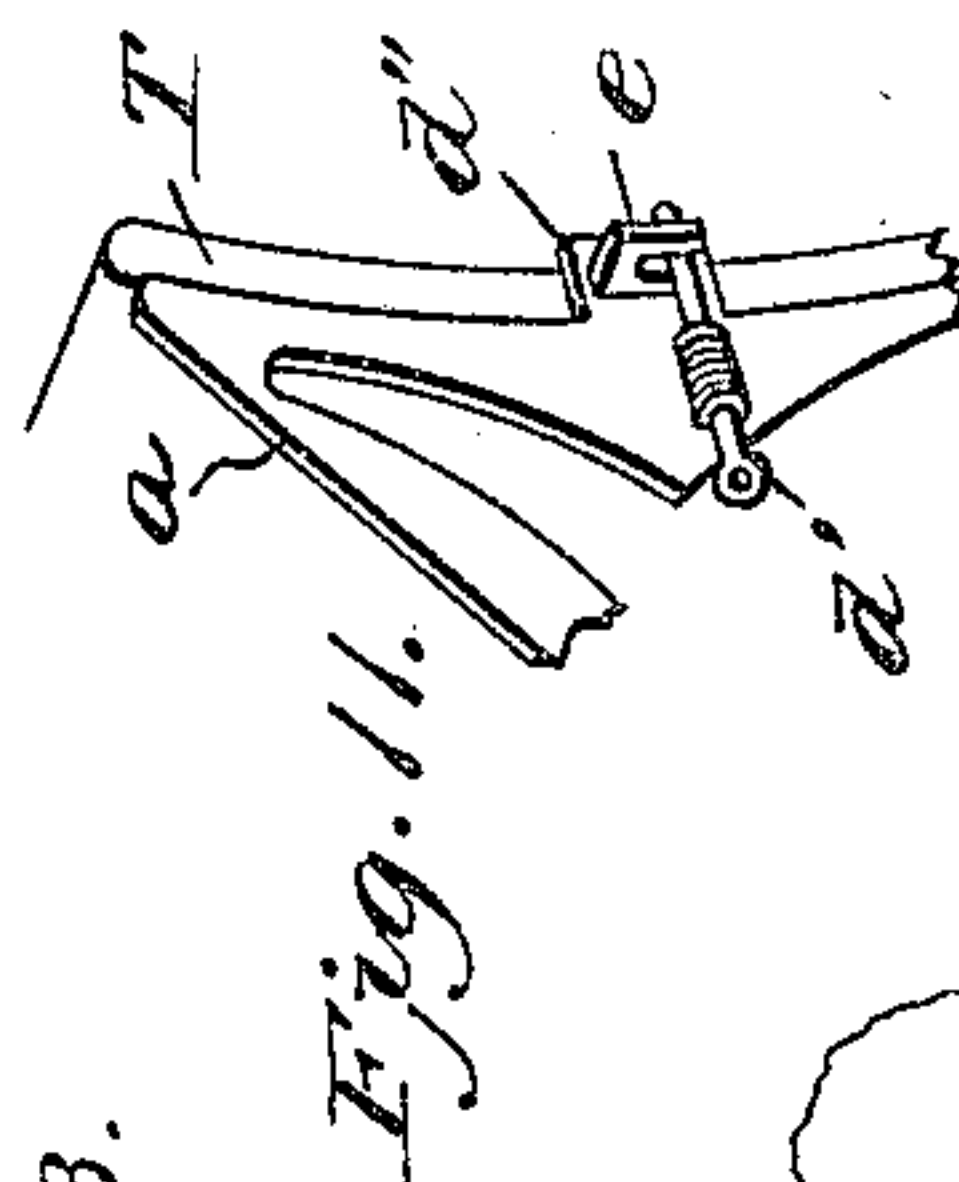
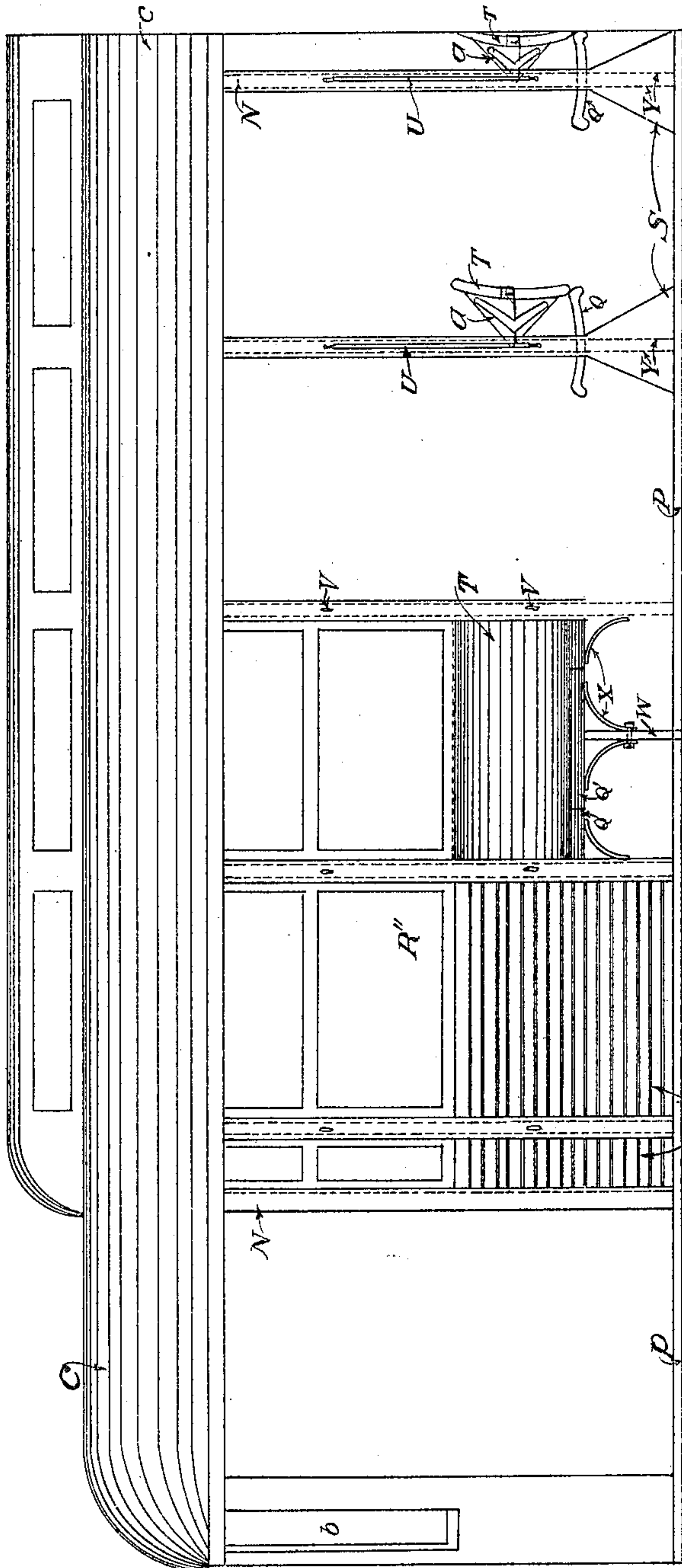


Fig. 3.

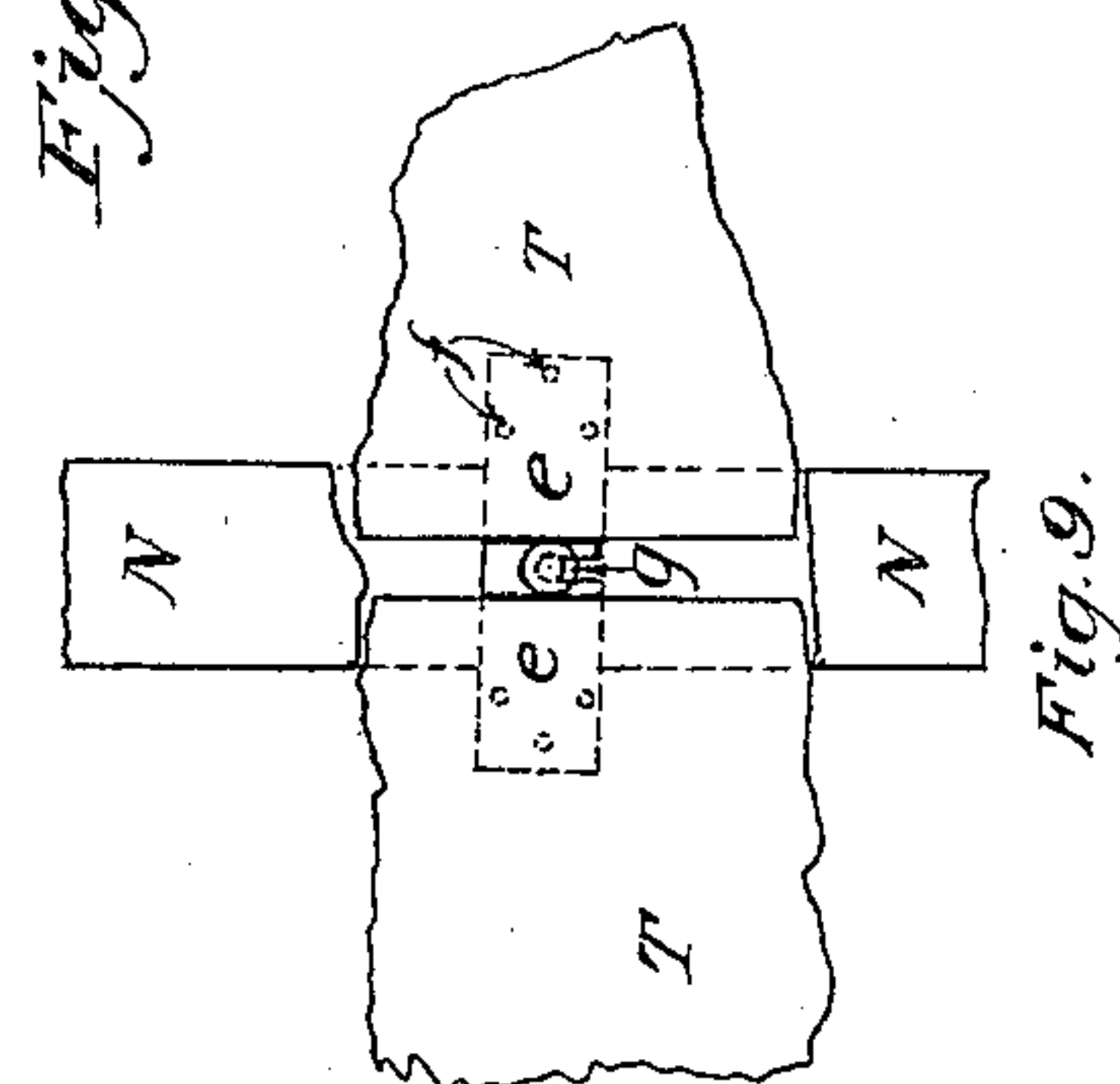


Fig. 9.

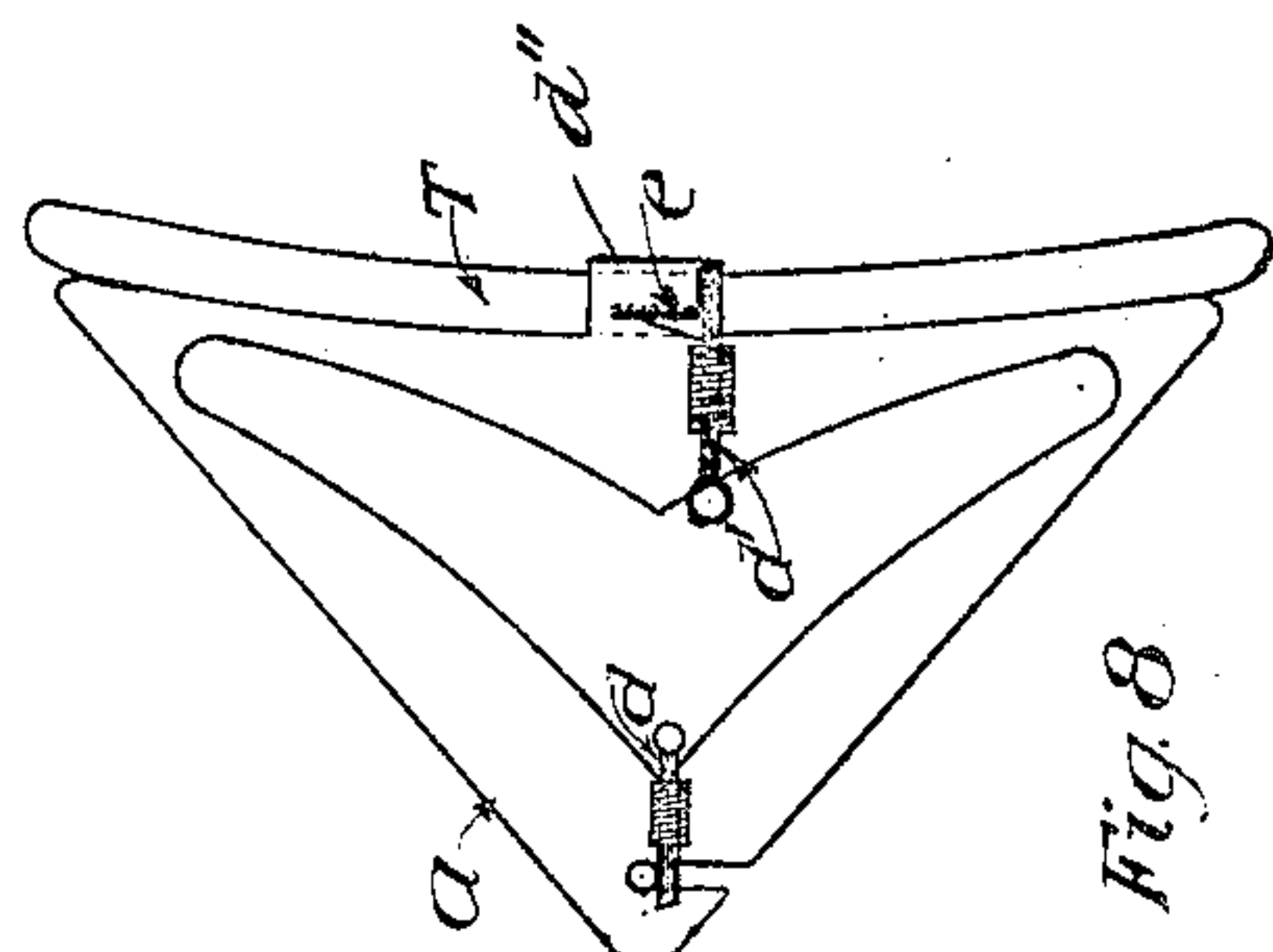


Fig. 8.

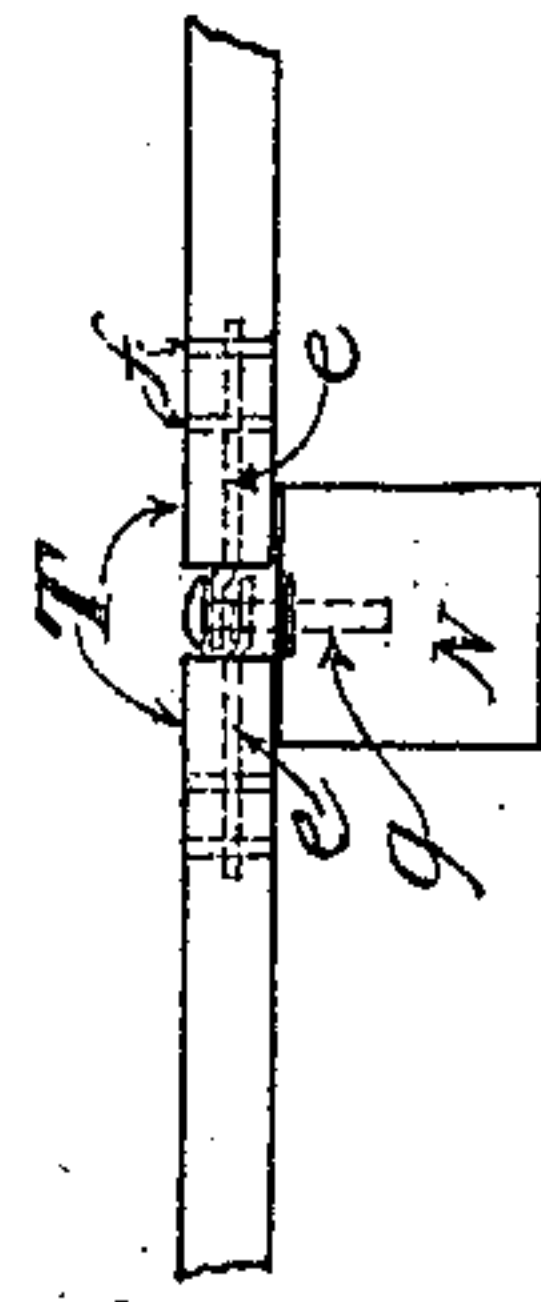


Fig. 10.

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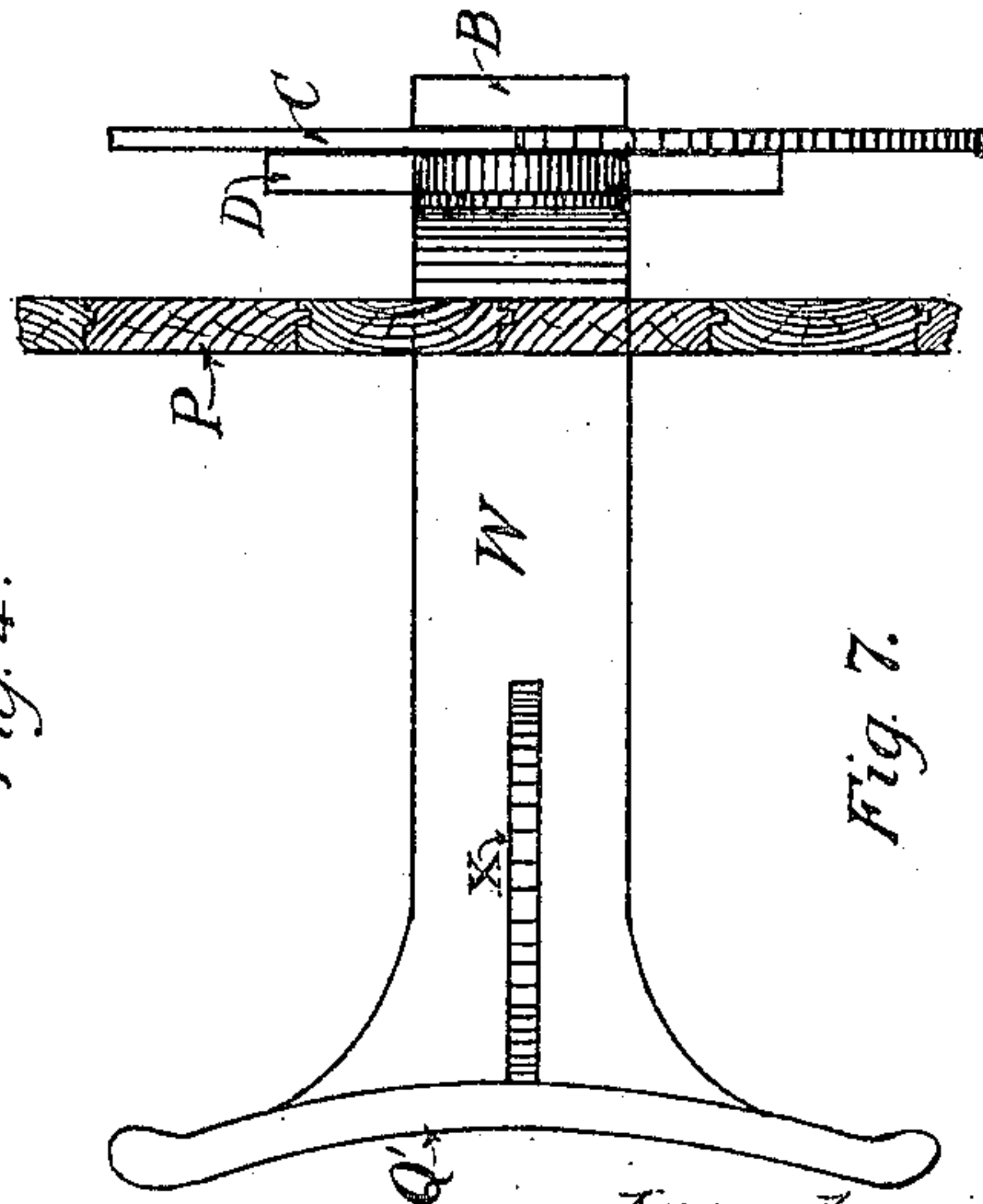
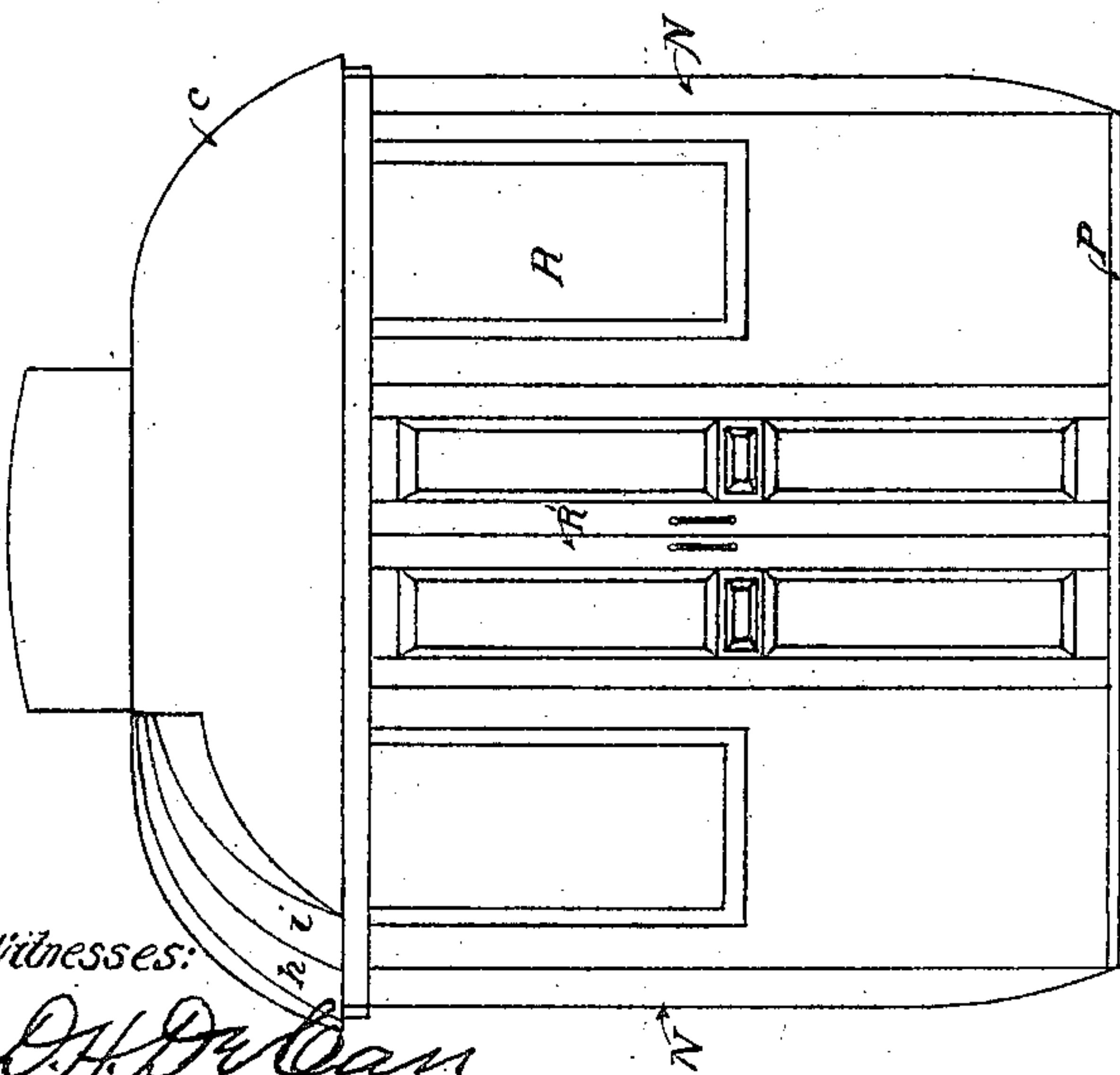
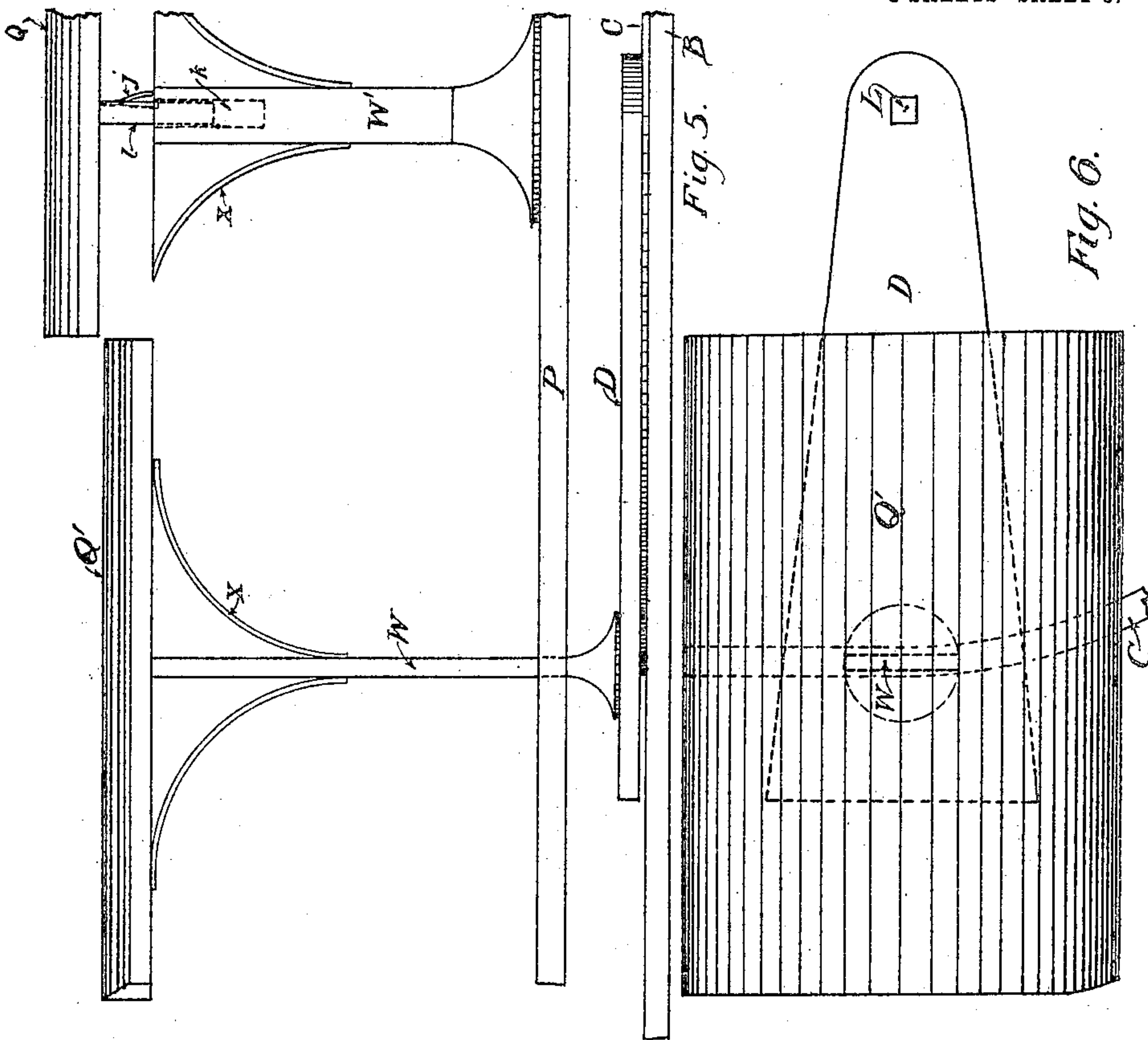
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Fig. 4.

Fig. 7.

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UNITED STATES PATENT OFFICE.

FRANK E. STANLEY AND JOHN L. GILLMORE, OF BELLINGHAM,
WASHINGTON.

CONVERTIBLE CAR.

No. 813,249.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed September 13, 1904. Renewed August 12, 1905. Serial No. 274,012.

To all whom it may concern:

Be it known that we, FRANK E. STANLEY and JOHN L. GILLMORE, citizens of the United States, residing at Bellingham, in the county of Whatcom and State of Washington, have invented new and useful Improvements in Convertible Cars, of which the following is a specification.

This invention relates to convertible cars. The objects of the invention are to improve and simplify the construction of such cars.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment of the invention.

In the accompanying drawings, forming part of this specification, in which similar characters of reference indicate corresponding parts in all the views, Figure 1 is a plan view of the improved car with the slotted floor removed. Fig. 2 is a plan view of the slotted floor with the upper part of car removed. Fig. 3 is a side elevation of the improved car. Fig. 4 is an end elevation thereof. Fig. 5 is an edge elevation of a movable and auxiliary seat. Fig. 6 is a plan view of one of the movable seats. Fig. 7 is an end elevation of one of the seats. Fig. 8 is a side elevation of the removable brackets that connect the back of the seat to the car-post for summer use. Fig. 9 is an inside view of the backs of two seats connected to the post for winter use. Fig. 10 is a plan view of the backs of two seats connected to the post for winter use. Fig. 11 is a detail perspective view.

A designates the side sills.

A' designates the cross-sills, which are fastened to the side sills.

B designates flat stringers.

C designates curved tracks.

D designates foot-pieces which swing upon the tracks C and are located beneath the car-floor.

E is a shaft running through the center of car, to which the cables H and H' are connected. The cables are connected to the shaft, and the cable H' winds up while the cable H unwinds, they being connected the one over and the other under. At their other

ends the cables are fastened at K on the foot-pieces.

F is the lever that operates the shaft, and it is lifted off and set aside when not in use.

G is the ratchet on the end of shaft E. The operation of the shaft E by means of the lever F moves the seats which are supported on the foot-pieces D, as hereinafter described.

I designates coil-springs set into the cables H and H' for the purpose of easing any strain upon the cables and keeping them taut.

J designates sheaves around which the cables H and H' travel, said sheaves being fastened on the cross-sills A'.

L designates the bolts or studs by means of which the foot-pieces D are pivotally mounted on the stringer B, said bolts being suitably journaled, so that the foot D may swing freely.

M is the front circle across sill.

N designates posts forming a part of the main frame of the car.

O designates the slots in the car-floor, through which the seat-supports W, having seats Q' thereon, project in an upward direction, it being understood that the tracks C and foot-pieces D are disposed beneath the car-floor.

P shows the floor of the car.

Q designates auxiliary seats removably supported on seat-supports W, bolted to the upper side of the floor P at the side of the car adjacent to the posts N, the seat part Q being vertically adjustable, as shown in Fig. 5, so as to be lifted up the thickness of the adjacent seat Q' and held by the spring j for the purpose of giving the seat Q' a clearance as it swings from the center of the car to the side, or vice versa, when changing the seats from position for summer use to position for winter use. When seat Q' is moved from one position to another, the seat Q is lifted entirely out of the socket and turned one-quarter around and set back into the socket, so that it forms a continuation of the seat Q'. The turning of the seat Q is for the purpose of bringing the hollowed or channeled portions of the seats in line with each other when changed from one position to the other. The spring j is pressed in until it enters the recess in the seat-stem l, and said stem drops into perfect position in the socket K.

R designates the end windows, which can

be opened by sliding them down for convenience in summer.

R' designates the double doors opening in opposite directions inserted in the partition.

5 S designates the castings serving as braces for the support of the post N, Fig. 3.

T designates the backs of the seats, which serve for both winter and summer purposes. The brackets *a* are removably attached by any
10 suitable means, such as the device *d'*, to the seats T, and said brackets may be detached when the seats are used for winter purposes.

U designates the handholds, which are detachable and may be taken off in winter.

15 V designates the slots which receive the handholds by means of block-pointed hooks which drop into slots V.

X designates the braces which support the seats Q and Q'.

20 Y designates the grooves which are plowed into post N, in which the sash R'' and Z (which is a flexible siding) travel up and down.

Z is the flexible siding which incloses the lower part of the car for winter use and which
25 can be used for sunshades in summer.

a designates the detachable brackets which connect the removable seat-backs T to the post N.

d is the spring-stop which connects the
30 bracket *a* to the post N by means of the stud *g* when the seats are used in summer. When the slot in the bracket *a* is fitted over the stud *g*, the spring-stop *d* springs back in place and holds the bracket on said stud *g*, so that the
35 seat-back may be turned from one side of the seat to the other.

d' is the spring-stop which connects bracket *a* to back T. The hooks *e*, which are fastened in the ends of backs T by means of
40 bolts *f*, are interlocked with the slotted projections *d''* on the bracket, and the spring-stop *d'* engages the hook *e*, as shown in Fig. 11. When the brackets *a* are removed from the seat-backs in winter, the hooks *e* are engaged with the studs *g*, as shown in Figs. 9
45 and 10.

c is the part of the roof in which the windows and flexible siding are stored in summer.

b is the window in the extreme end of the car.

50 *h* designates the ways which receive the windows R'' when laid away in summer, Fig. 4.

i designates the ways which receive the flexible siding *z* when laid away in summer.

Z' is a siding which may be operated the
55 same as Z or may be built stationary without any inconvenience to the car.

Changes in the precise embodiment of invention illustrated and described may be made within the scope of the following claims
60 without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed is—

65 1. In a convertible car, a plurality of movable seats, a rotary operating-shaft extend-

ing approximately the entire length of the car, and means connected with the operating-shaft for moving the seats.

2. In a convertible car, a plurality of pivotally-mounted seats, a rotary operating-
70 shaft extending approximately the entire length of the car, and means connected with the operating-shaft for moving the seats.

3. In a convertible car, a plurality of pivotally-mounted seats, a rotatable shaft extending longitudinally of the car, and flexible
75 elements connecting said shaft with the seats.

4. In a convertible car, a plurality of movable seats, an operating-shaft, flexible elements connecting said shaft with said seats,
80 and strain-receiving and tightening means for said flexible elements.

5. In a convertible car, a plurality of movable seats, flexible elements for operating
85 said seats, and strain-receiving and tightening means connected with said flexible elements.

6. In a convertible car, a plurality of movable seats, an operating-shaft, a plurality of flexible elements connecting said shaft with
90 said seats, and a plurality of coil-springs connected with said flexible elements.

7. In a convertible car, a plurality of movable seats, a plurality of auxiliary seats adapted to cooperate therewith, and means for
95 simultaneously moving the movable seats.

8. In a convertible car, a plurality of movable seats, a plurality of auxiliary seats adapted to cooperate therewith, means for moving
100 the movable seats, and means for holding the auxiliary seats in elevated position, during the movement of the movable seats.

9. In a convertible car, a slotted floor, a plurality of movable foot-pieces beneath the floor, a standard on each of the foot-pieces
105 projecting upwardly through the slotted floor, a seat on each of the standards, and means for moving the foot-pieces.

10. In a convertible car, a slotted floor, a plurality of movable foot-pieces beneath the
110 floor, a standard on each of the foot-pieces projecting upwardly through the slotted floor, a seat on each of the standards, and means for simultaneously moving the foot-pieces.
115

11. In a convertible car, a slotted floor, a plurality of foot-pieces pivotally mounted beneath said floor, a seat-support connected with each foot-piece, and extending through
120 the slotted floor, a seat on each seat-support, and means for simultaneously moving said pivotally-mounted foot-pieces.

12. In a convertible car, a plurality of pivotally-mounted foot-pieces, a seat upon each of the foot-pieces, an operating-shaft, and
125 flexible elements connecting the operating-shaft with the foot-pieces.

13. In a convertible car, a slotted floor, a plurality of pivotally-mounted foot-pieces below said floor, a seat-support on each of
130

said foot-pieces, a seat on each seat-support, a stationary seat-support on said floor adjacent to each foot-piece, an auxiliary seat removably mounted on each stationary seat-support, an operating-shaft extending longitudinally of the car, and a plurality of flexible elements connecting said shaft with said foot-pieces.

10 14. In a convertible car, a plurality of movable seats, means for moving said seats, a stationary seat-support adjacent to each movable seat, and an auxiliary seat removably

connected with each of the stationary seat-supports.

15 15. In a convertible car, a plurality of movable seats, means for moving said seats, a seat-back cooperating with each seat, and removable brackets secured to each seat-back.

FRANK E. STANLEY.

JOHN L. GILLMORE.

In presence of—

O. P. CALLAHAN,

A. E. CORNELIUS.