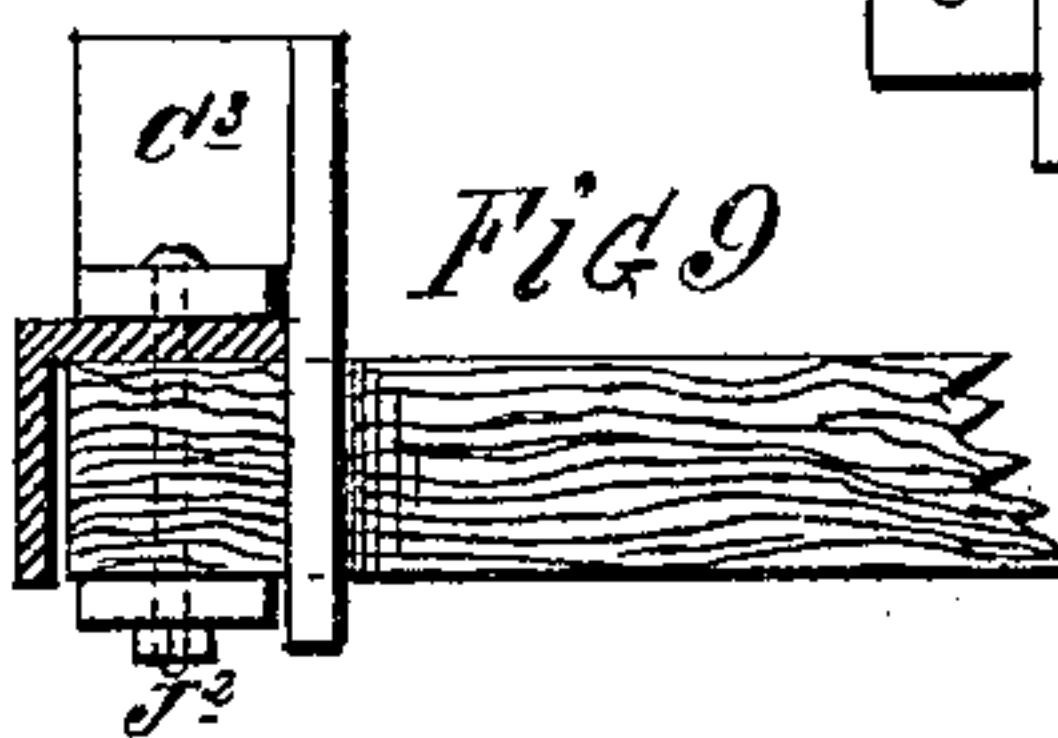
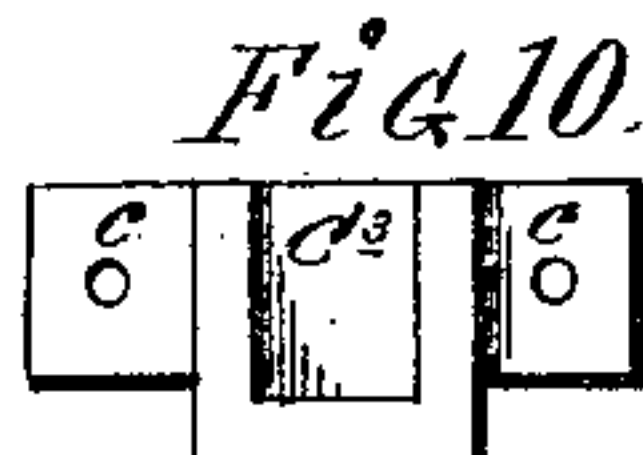
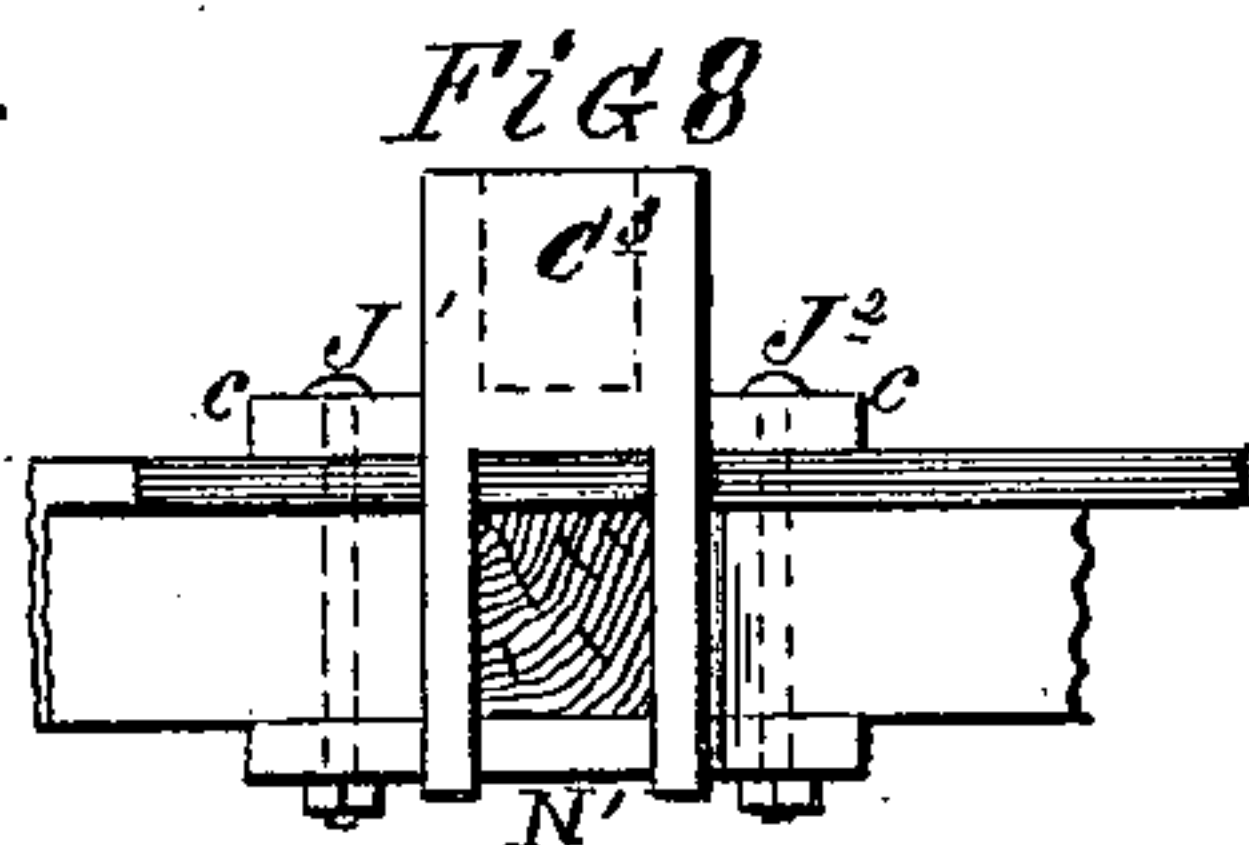
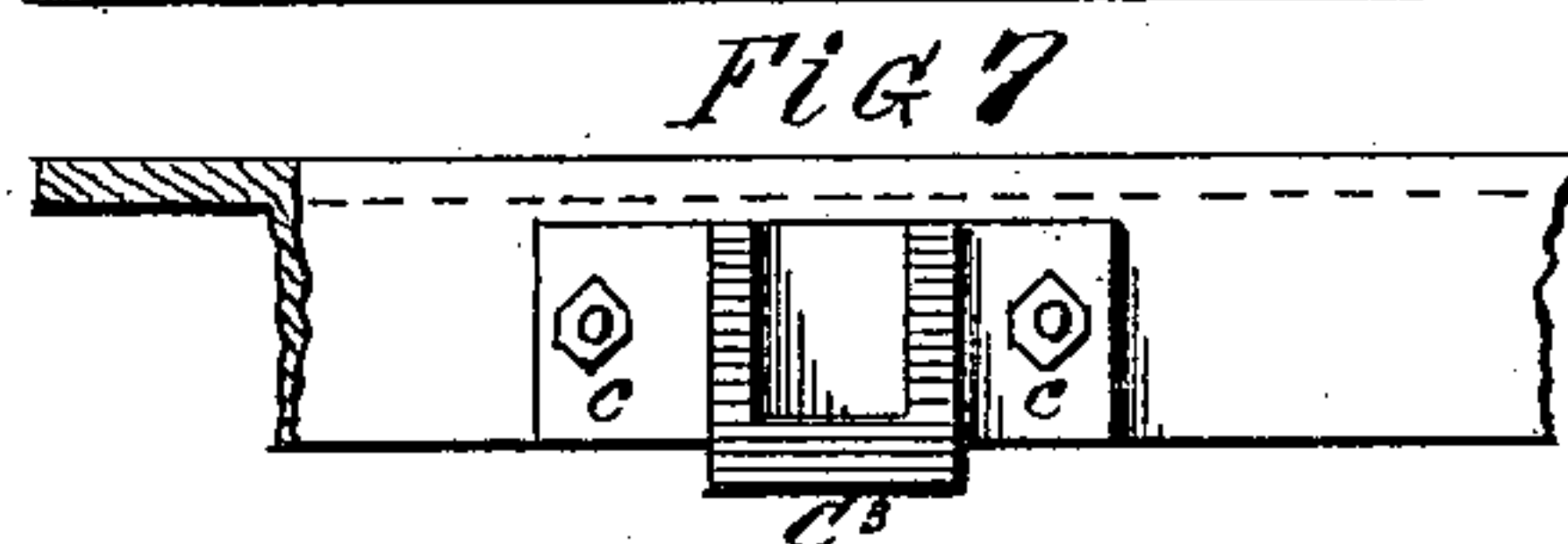
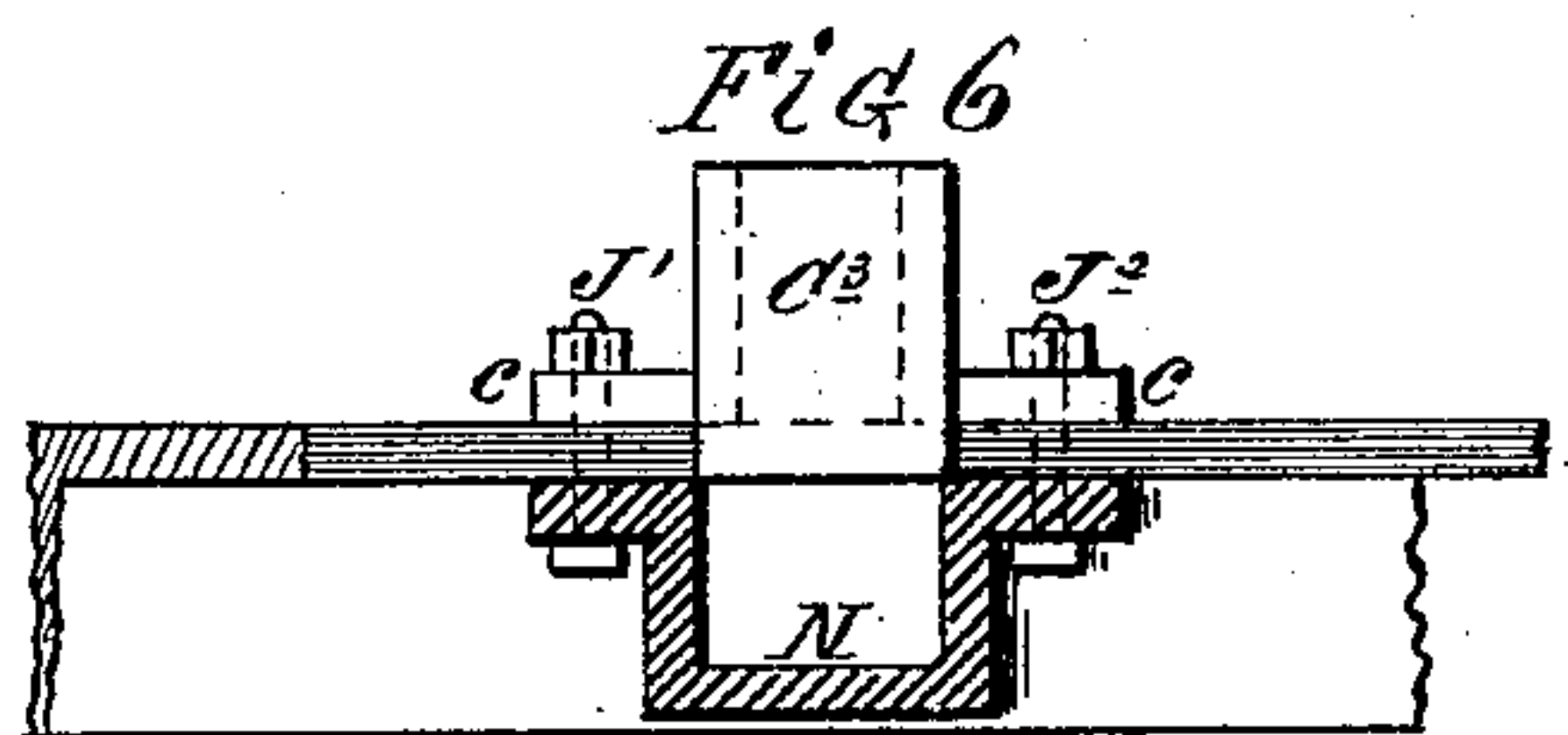
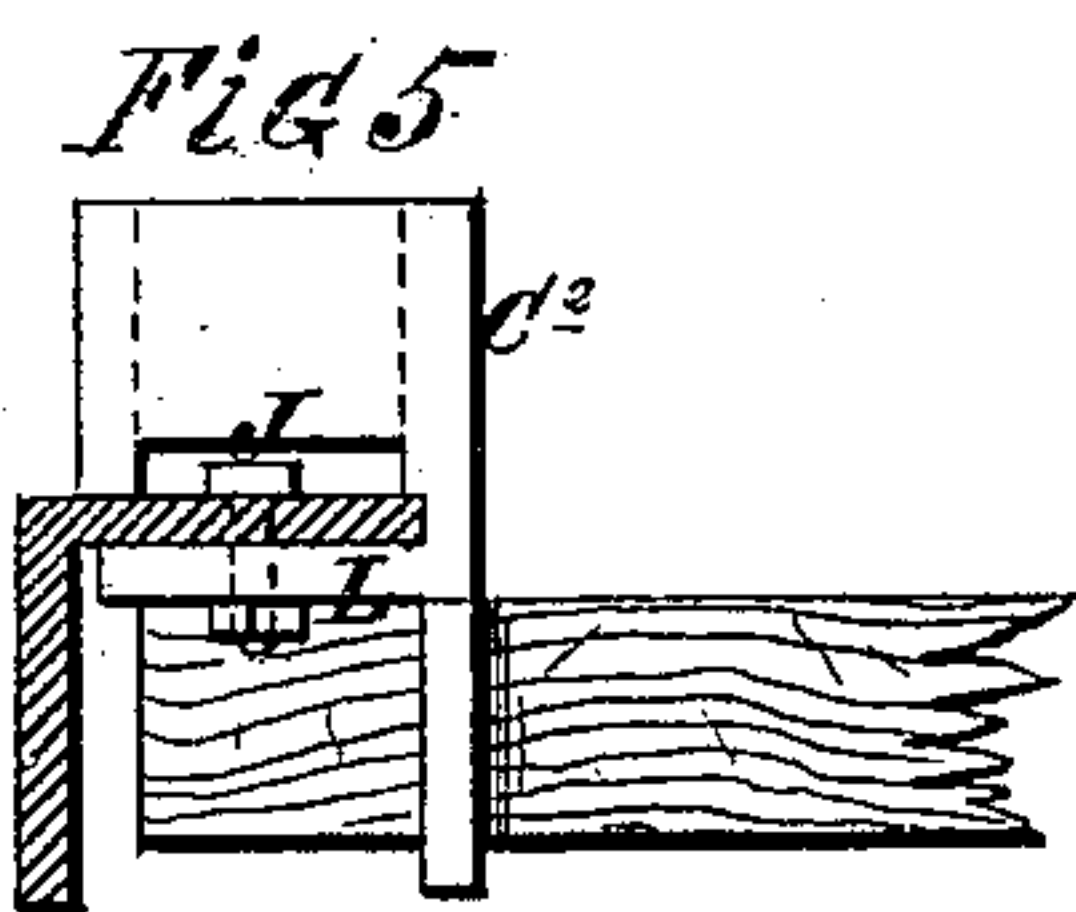
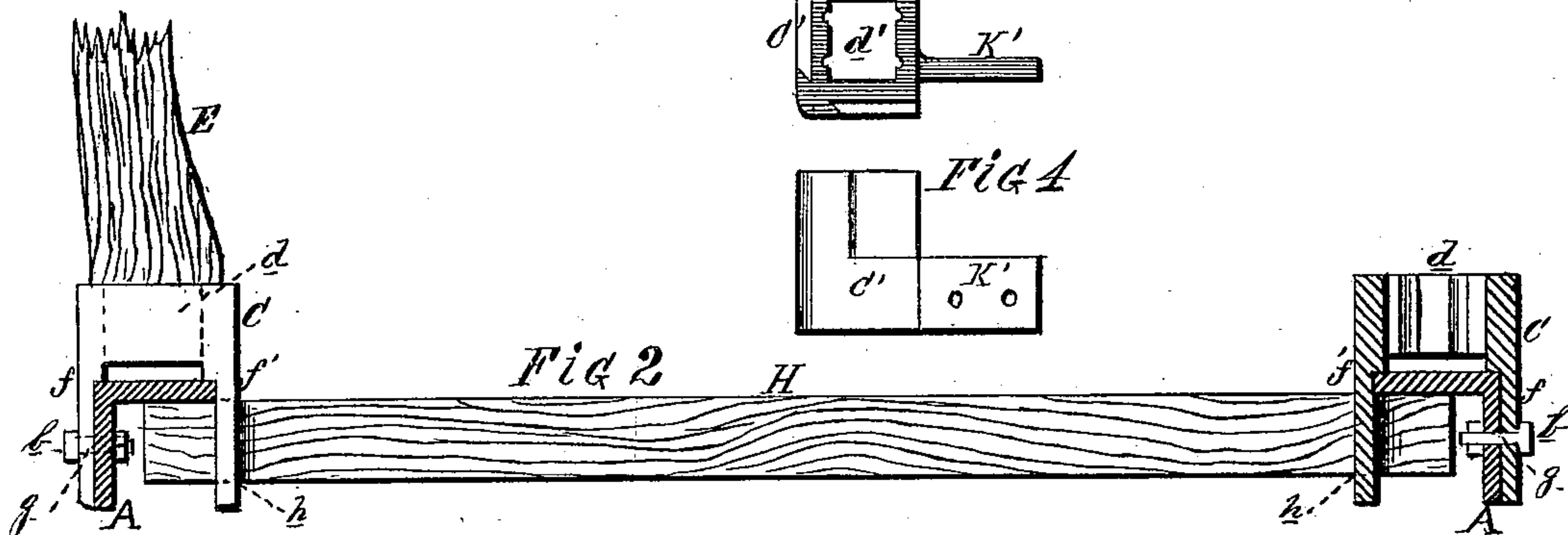
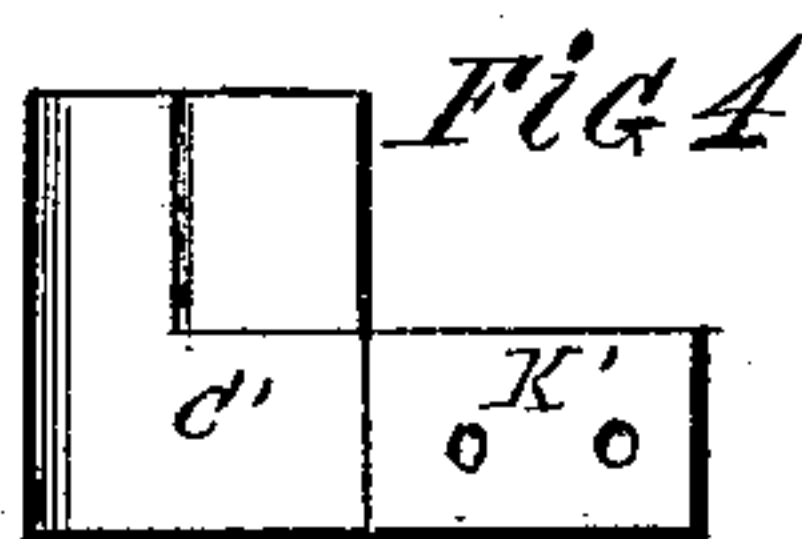
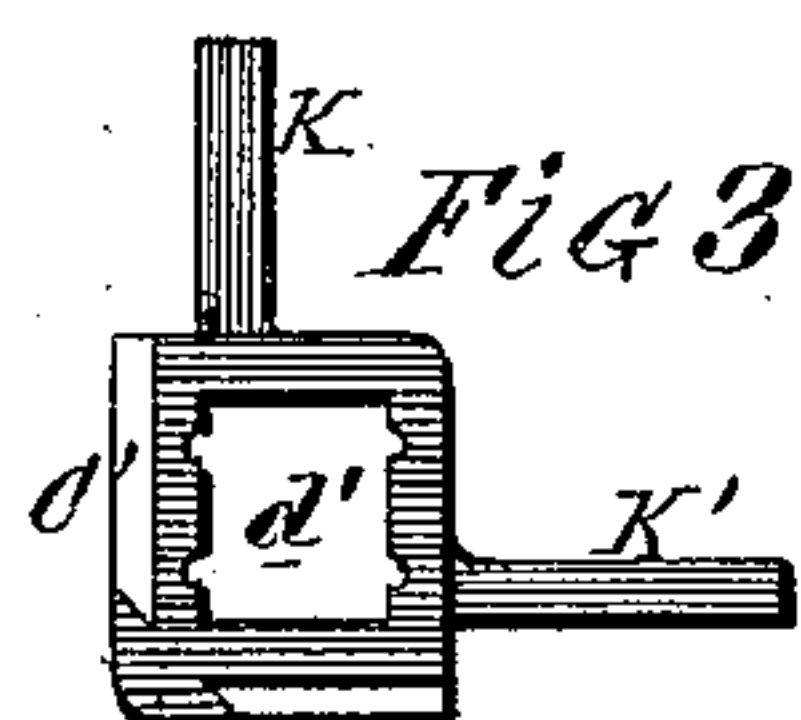
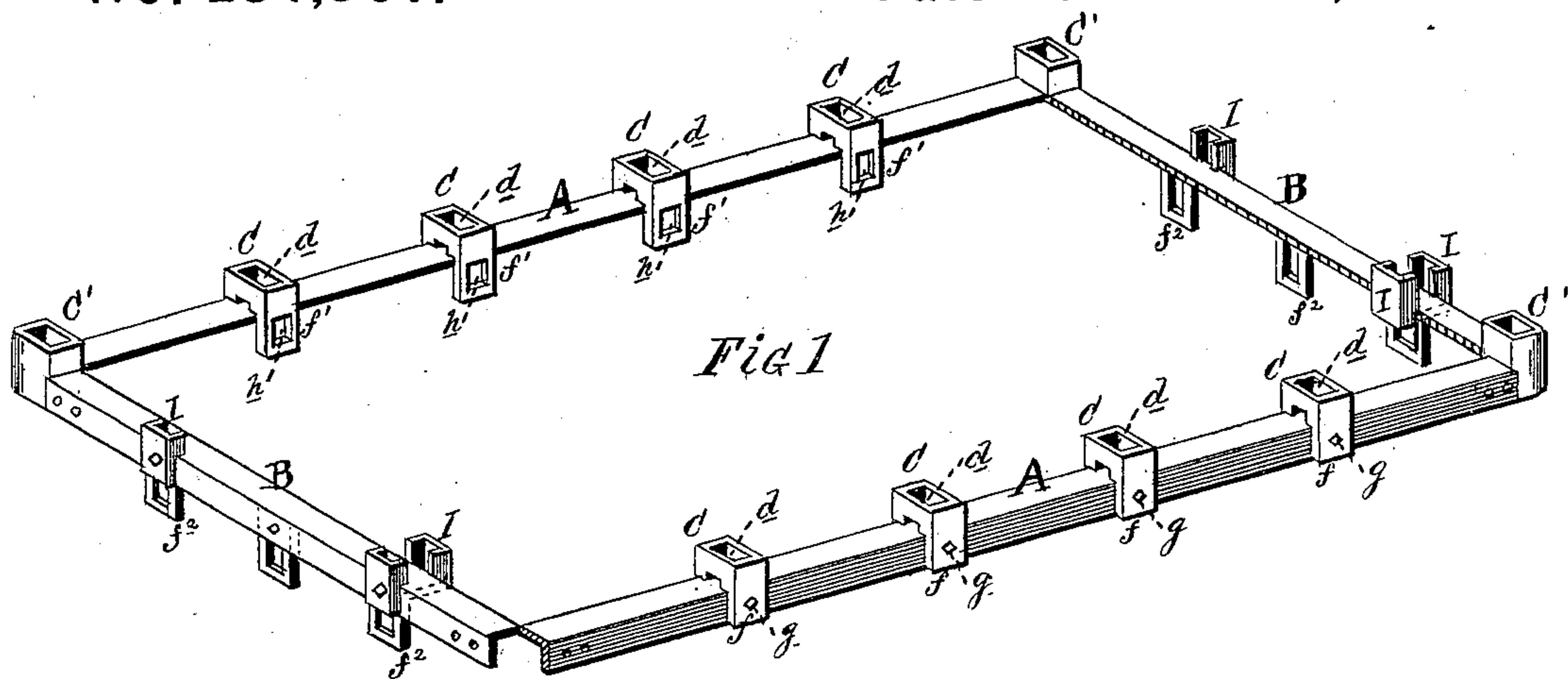


(Model.)

G. L. WAITT.
Railway Car.

No. 234,507.

Patented Nov. 16, 1880.



Witnesses:
Samuel L. Garvey
J. E. Carpenter.

Inventor:
George L. Waitt.
By Isaac R. Oakford
His Attorney.

UNITED STATES PATENT OFFICE.

GEORGE L. WAITT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
SAMUEL L. GARRETT, OF SAME PLACE.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 234,507, dated November 16, 1880.

Application filed January 3, 1880.

To all whom it may concern:

Be it known that I, GEORGE L. WAITT, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Building, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my improvement in car-body frames. Fig. 2 is a transverse section (enlarged) of my invention in car-body frames. Figs. 3 and 4 represent a metal corner-piece for supporting the corner posts or pillars. Figs. 5, 6, 7, 8, 9, and 10 represent various modifications of my invention.

In the street-railway cars now in use the posts or pillars which support the roof and form the skeleton to which the sides and ends of the car are fastened are mortised into the sills of the bed-frame. The difficulty experienced with cars built in this manner is, that the wooden sills, and also the lower ends of the posts or pillars where they join the sills, decay and rot off in a short time, owing to the dampness from rain and frequent washing of the car, which settles in the mortise and cannot dry out. Considerable labor is required in taking the car apart when the posts and sills require renewal.

The object of my invention is to obviate this difficulty, and to provide metal sills, strong and durable, which are furnished with iron chairs or sockets to secure the posts or pillars in position and permit a free circulation of air around their lower ends.

My invention also consists in forming the chairs or socket-pieces to receive and support the ends of the floor-beams.

The metal sills A A and B B, Figs. 1 and 2, are constructed of rolled angle iron or steel, of the proper longitudinal and transverse lengths for the sides and ends of the car. These sills may be made of cast or any other suitable metal, although rolled angle iron or steel is preferred.

The side sills, A A, are provided with chairs C C C, which are made with sockets *d*, to receive and support the lower ends of the posts or pillars E. The said chairs have flanges or

projections *f* and *f'* cast or formed on their ends, which embrace the sills, and are provided with openings *g*, corresponding with openings in the vertical flanges of the sill, through which bolts *b* are passed for securing them in position. The inner flange, *f'*, which projects below the horizontal flange of the sill, is provided with an opening, *h*, to receive the ends of the floor-beams H.

Secured to the transverse or end sills B B are chairs I I, Fig. 1, which are adapted to receive the lower ends of the door-posts. They are arranged on the sills, as shown in the drawings, to allow the sliding doors to pass between, and are provided with projections *f*², having openings through which the platform-rails pass.

The corner-chairs C', Figs. 3 and 4, with sockets for the corner-posts, are provided with arms K and K', to which the angle-iron sills A A and B B are bolted, as shown in Fig. 1, thus forming a strong and durable car-body frame, which may be mounted upon suitable axles and wheels.

The chair C² (shown in Fig. 5) is provided with a flange, L, which projects underneath the horizontal flange of the sill, and is secured to the same by means of bolts J.

The chair C³ (shown in Figs. 6, 7, 8, 9 and 10) is furnished with side flanges or wings, *c c*, which rest upon the horizontal flange of the sill, and is secured in place by means of bolts J' and J², which also pass through and secure a strap, N or N', underneath for the floor-beams to rest upon.

In order that the paneling used in closing up the sides of the car may be flush with the outside of the sills, the chairs C² or C³ are set back a short distance from the outer edge of the sill. The sockets in the chairs C³ are also made with one side open to allow nails or screws to be driven into the posts or pillars in securing the paneling in place; or a small opening made in the side of the chair C² would answer the purpose.

The sockets or receptacles in the chairs may be grooved to allow water to run off, and also to admit air, to keep the lower ends of the posts dry.

What I claim as my invention is—

1. The chairs C, provided with sockets d and openings h , to receive the posts or pillars E and floor-beams H, in combination with the right-angle iron sills A A, substantially as described. 5
2. The combination of the right-angle iron sills A A and B B, chairs C, sockets d , flanges f and f' , openings g and h , bolts b , corner-chairs C', sockets d' , arms K and K', chairs I, projections f^2 , posts E, and floor-beams H, 10 substantially as and for the purpose specified.
3. The chair provided with vertical grooves in its socket, as shown and described.

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Witnesses:

ANDREW D. CALDWELL,
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