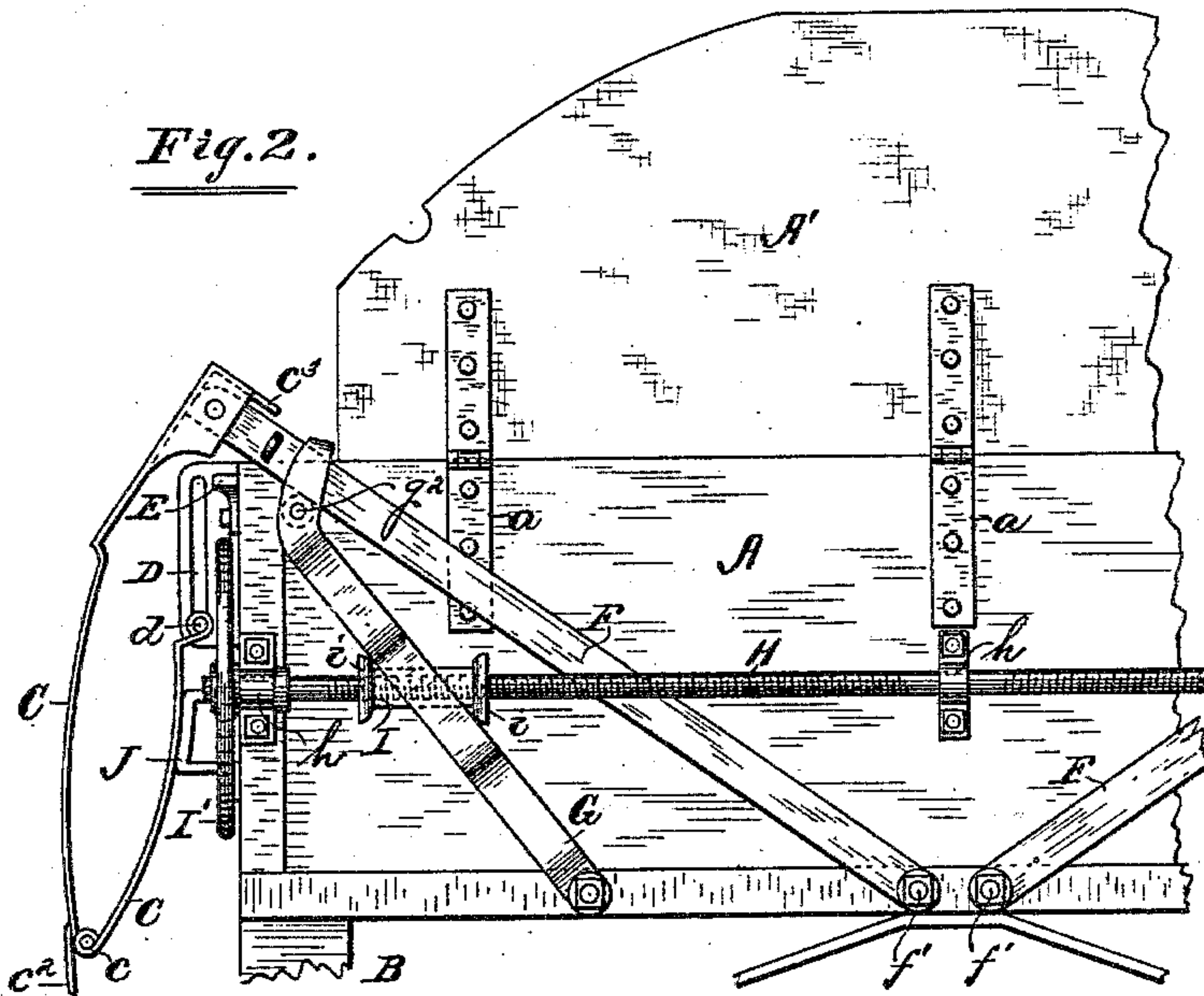


2 Sheets—Sheet 1.

No. 296,809.

Patented Apr. 15, 1884.



Witnesses,

Henry Frankfort.
W. L. Baker.

Inventor.

Richard H. Wynvan.
per Wridley & Co.
his Attorneys.

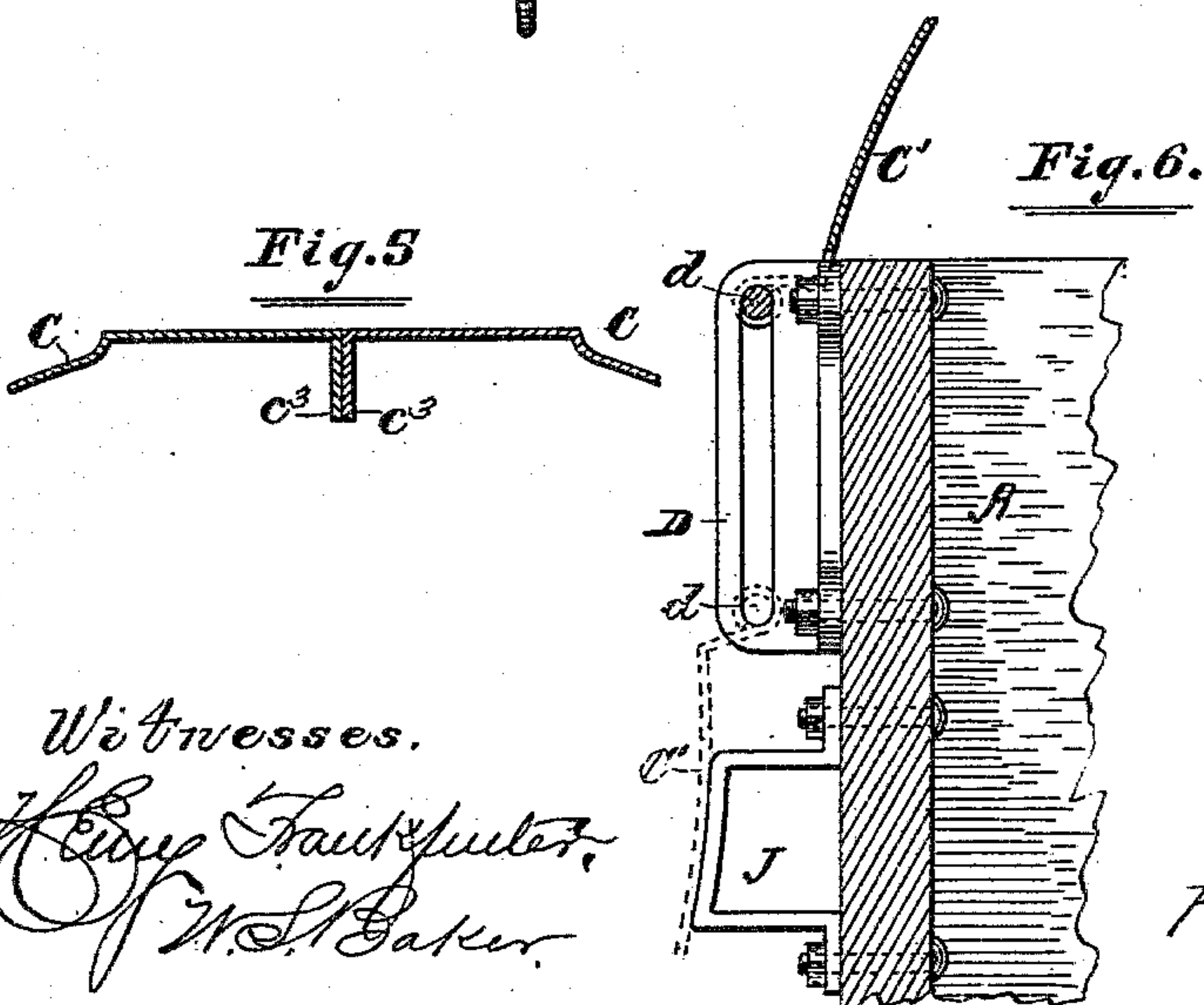
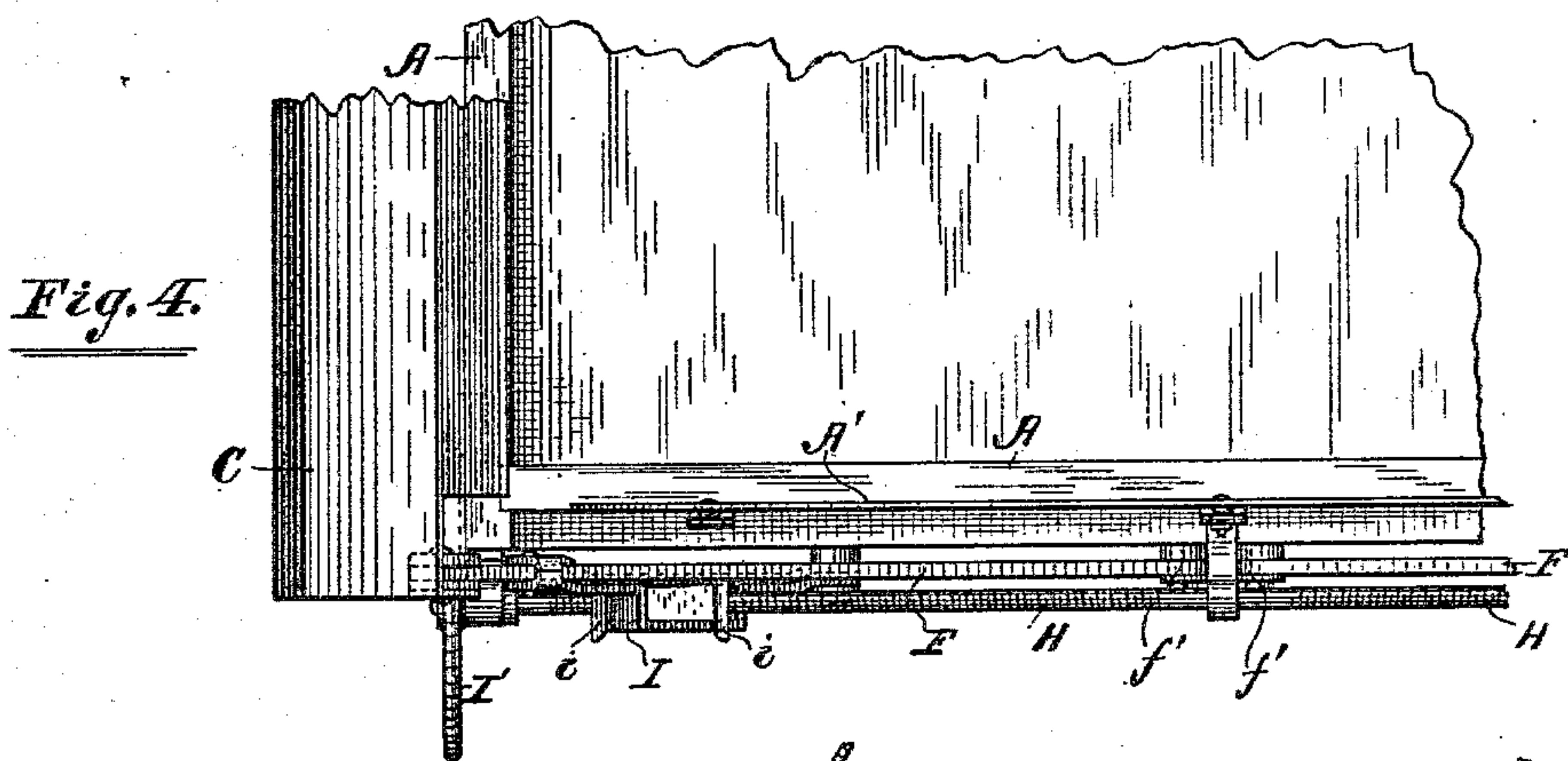
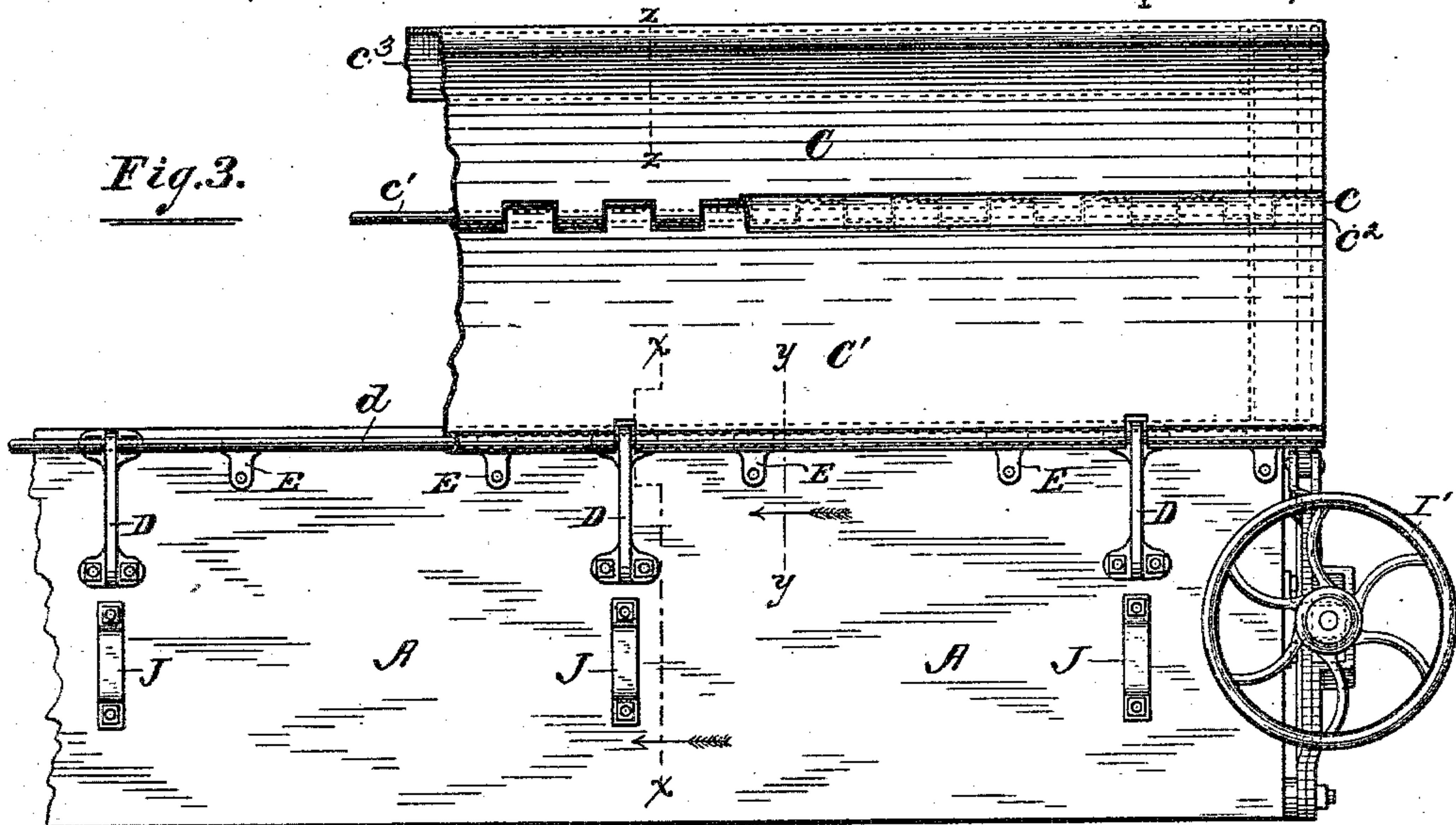
(No Model.)

2 Sheets—Sheet 2.

R. H. WYMAN.
RAILWAY CAR COVER.

No. 296,809.

Patented Apr. 15, 1884.



Witnesses.
Henry Traupner,
W. L. Baker.

Inventor.
Richard H. Wyman.
per Credley & Co.
his Attorneys.

UNITED STATES PATENT OFFICE.

RICHARD H. WYMAN, OF CHICAGO, ILLINOIS.

RAILWAY-CAR COVER.

SPECIFICATION forming part of Letters Patent No. 296,809, dated April 15, 1884.

Application filed January 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, RICHARD H. WYMAN, of Chicago, Illinois, have invented a new and useful Improvement in Railway-Car Covers, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is an end view, showing the cover closed. Fig. 2 is a like end view, showing one-half of the cover open. Fig. 3 is a side view of one end of a car with the cover raised. Fig. 4 is a plan view of that portion of the car shown in Fig. 2. Fig. 5 is a transverse sectional view in detail on the line $z z$, Fig. 3. Fig. 6 is a transverse sectional view in detail on the line $x x$, Fig. 3, looking in the direction of the arrow; and Fig. 7 is a like view on the line $y y$, Fig. 3, looking in the direction of the arrow.

Like letters of reference indicate like parts in the different figures.

The object of my invention is to provide a movable cover for railway freight or coal cars, which may be easily and readily operated and cheaply constructed, and so arranged that the entire car may be uncovered at once by a simple operation, said invention being an improvement upon my invention as described in my application for Letters Patent upon "a movable cover for coal and other cars," filed December 4, 1883, and having especial reference to the construction of the cover and the mode of operating the same.

In the drawings, A represents the box of an ordinary coal or open car, while B B represent the frame supporting the same. The cover of said car is secured to said side-boards, and consists, essentially, of two hinged longitudinal sections, adapted to meet, when closed, above the center of the car, each of said sections being so jointed as to hinge or fold back upon itself, the same being disposed at the side of the car in a compact form. C C' C C' represent said sections, respectively, each of which runs preferably the entire length of the car, though it is obvious that they may be made shorter, if preferred. The sections C C', respectively, are preferably formed from sheet-iron or other sheet metal, plain or corrugated, and are hinged to each other at c , as shown in

Figs. 1, 2, and 3, the parts forming the hinge being bent over a rod or bar of iron, c' , as shown in Fig. 3. Over said hinge-joint I prefer to place a flange, c^2 , to protect said joint from rust. A part of said flange is broken away in Fig. 3, to show said joint. Securely bolted to the side of said car are brackets D, which serve as a support for the bottom of said sections C C', said brackets being provided with a slot, as clearly shown, the length of which is about half the height of said side-boards. Through said slots, and extending the entire length of the car, I insert rods or bars of iron $d d$, around which, when so inserted, the lower edges of the sections C C', respectively, are bent as shown, thus securing said sections to said brackets, and forming hinges thereby. To assist in supporting said sections C C' C C' in position when the cover is closed, I cause the same to be bent inward from said rods $d d$, so that when so closed a portion will assume a horizontal position, adapted to rest upon small outwardly-projecting brackets E (more clearly shown in Fig. 7) or upon a continuous flange or ledge at or near the top of said side-boards A. The meeting parts of said sections C C are shaped as shown in the drawings, so as to form a horizontal walk upon the top of the car when the same are brought together, as in Fig. 1, while downwardly-projecting flanges $c^3 c^3$, Figs. 3 and 5, serve to strengthen and support the same. For the purpose of raising and lowering said sections, I attach to each end of the same, respectively, at $f f$, near their points of junction beneath said foot-walk, rigid bars of wood or iron F F, the lower ends of which, $f' f'$, are pivoted, as shown, to the bottom of said car. Pivoted in like manner to the bottom of said car, at each side of said pivots $f' f'$, about midway between said points, respectively, and the sides of said car, as at $g g$, are bars G G, upon the upper ends of which are loops or slots $g' g'$, through which said bars F F are loosely inserted. Within said slots $g' g'$, and upon the outside of each of said bars F F, I place friction-rollers $g^2 g^2$. (Indicated in dotted lines.) Across each end of the car, in a horizontal position, and secured in bearings $h h h$, I place a shaft, H, upon which is cut a

right and left hand screw-thread, as shown in Figs. 1 and 2. Upon each of said screw-threads I place sleeve-nuts I I, which are square, and upon each end of which are enlargements or flanges *i i*, said nuts I I fitting in suitable slots in the bars G G, so as to move the same when the shaft H is rotated. A wheel, I', Figs. 2 and 3, serves to operate said bar. It is obvious that the rotation of said shaft in one direction must cause the bars F F, through the levers or bars G G, to be forced together, which closes said cover over the car, causing the sections C C to meet, as shown in Fig. 1, while a reversal separates the upper ends of said bars F F, and the same being rigidly secured to the sections C C causes them to be thrown outward, and, bending at the hinges *c c*, fold over upon the sections C' C', respectively, the rods *d d* sliding down in the slots of the brackets D sufficiently to enable the sections C C to drop to the lowest point required, as indicated in Fig. 2. In order to prevent said sections from being thrown too far in toward the body of the car, and thus interfere with the operation of the former, I place brackets J upon the side of the car, against which said folded sections rest, as in Fig. 2.

To protect and inclose the ends of the car, additional end pieces, A', Figs. 1 and 2, may be secured to the end boards by means of hinges *a a*, whereby the same may be lowered when the cover is down.

The covers, when closed, may be locked in position by means of a hasp and staple, *f*², secured to the bars F F at each end of the car.

If found necessary in practice, wheels may be placed upon both ends of the shafts H, so that a greater number of persons may assist in operating the cover; or wheels may be placed upon each end of said shafts, and the latter may be divided at the central bearing, *h*, so that one-half of said cover may be raised at a time.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the box or frame of a coal or open car, of the sectional hinged covers C C' C C', with the pivoted bars F F, the pivoted levers G G, shaft H, and sleeve-nuts I I, and means for rotating said shaft, whereby each of said sections may fold back upon itself, substantially in the manner and for the purposes set forth.

2. A movable cover for coal or open cars, consisting of the combination of the folding sectional covers C C' C C', the slotted brackets D, pivoted bars F F, levers G G, screw-threaded shaft H, and sleeve-nuts I I, with means for rotating said shaft, substantially in the manner and for the purposes set forth.

RICHARD H. WYMAN.

Witnesses:

D. H. FLETCHER,
H. FRANKFURTER.