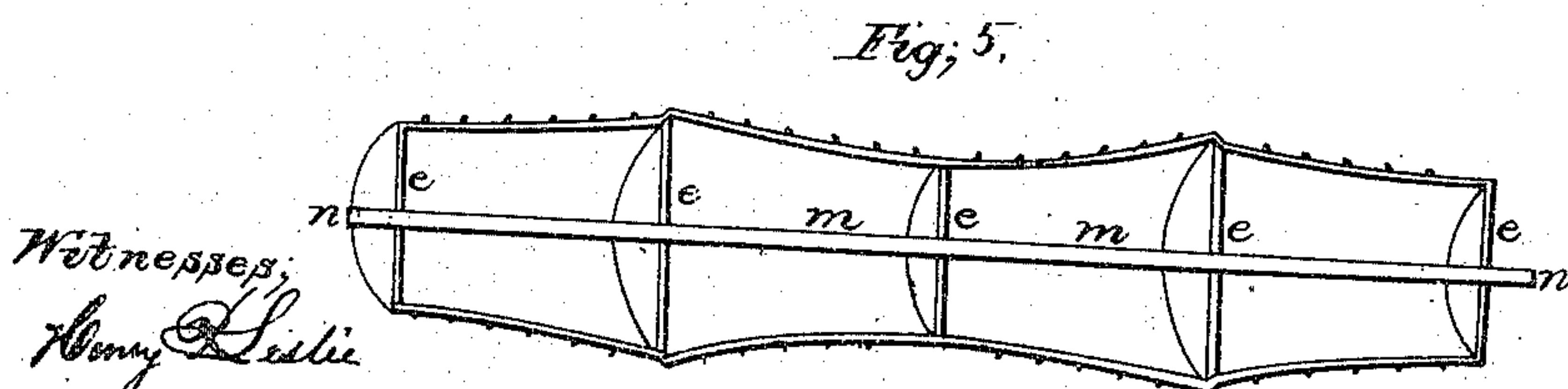
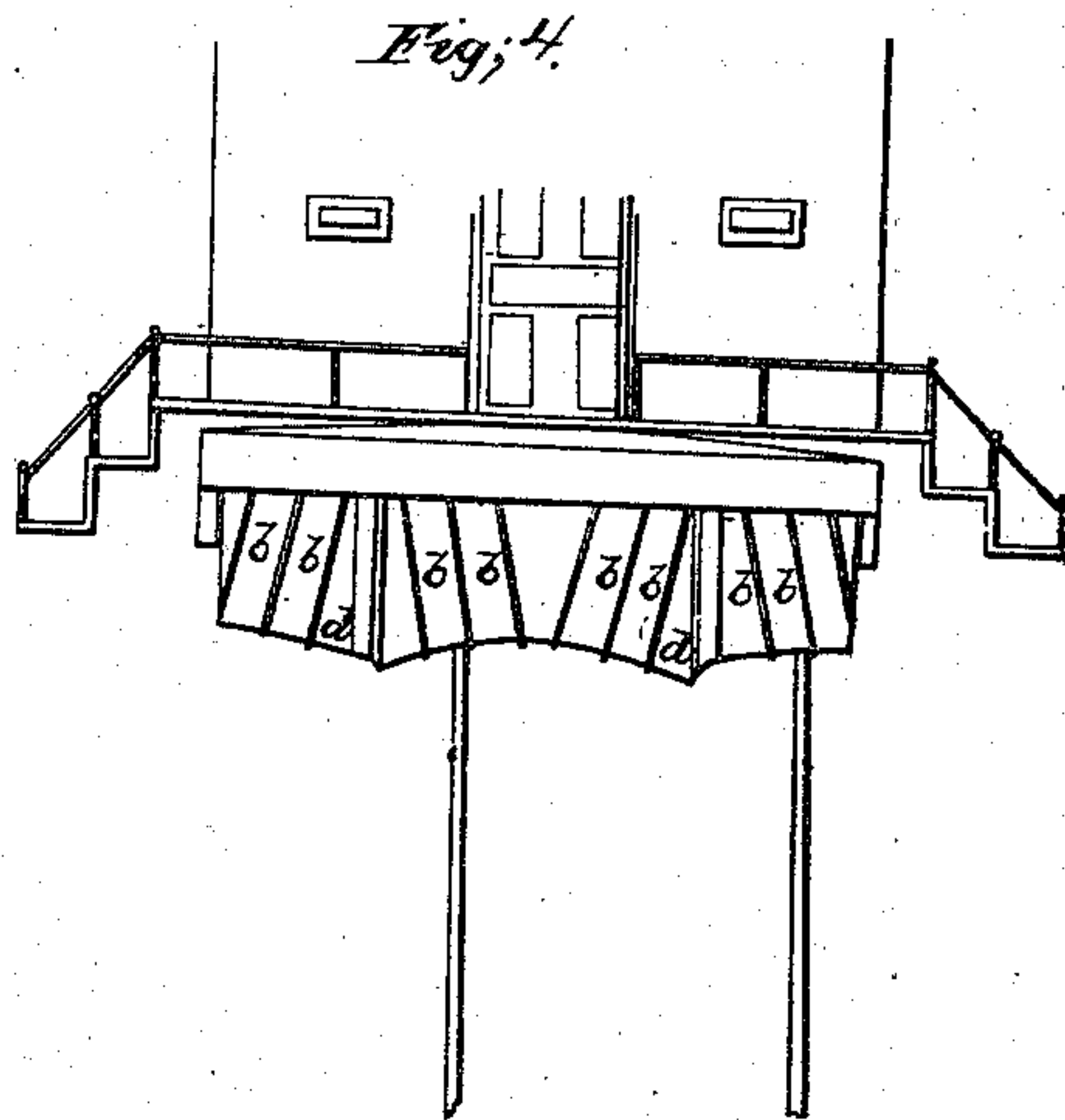
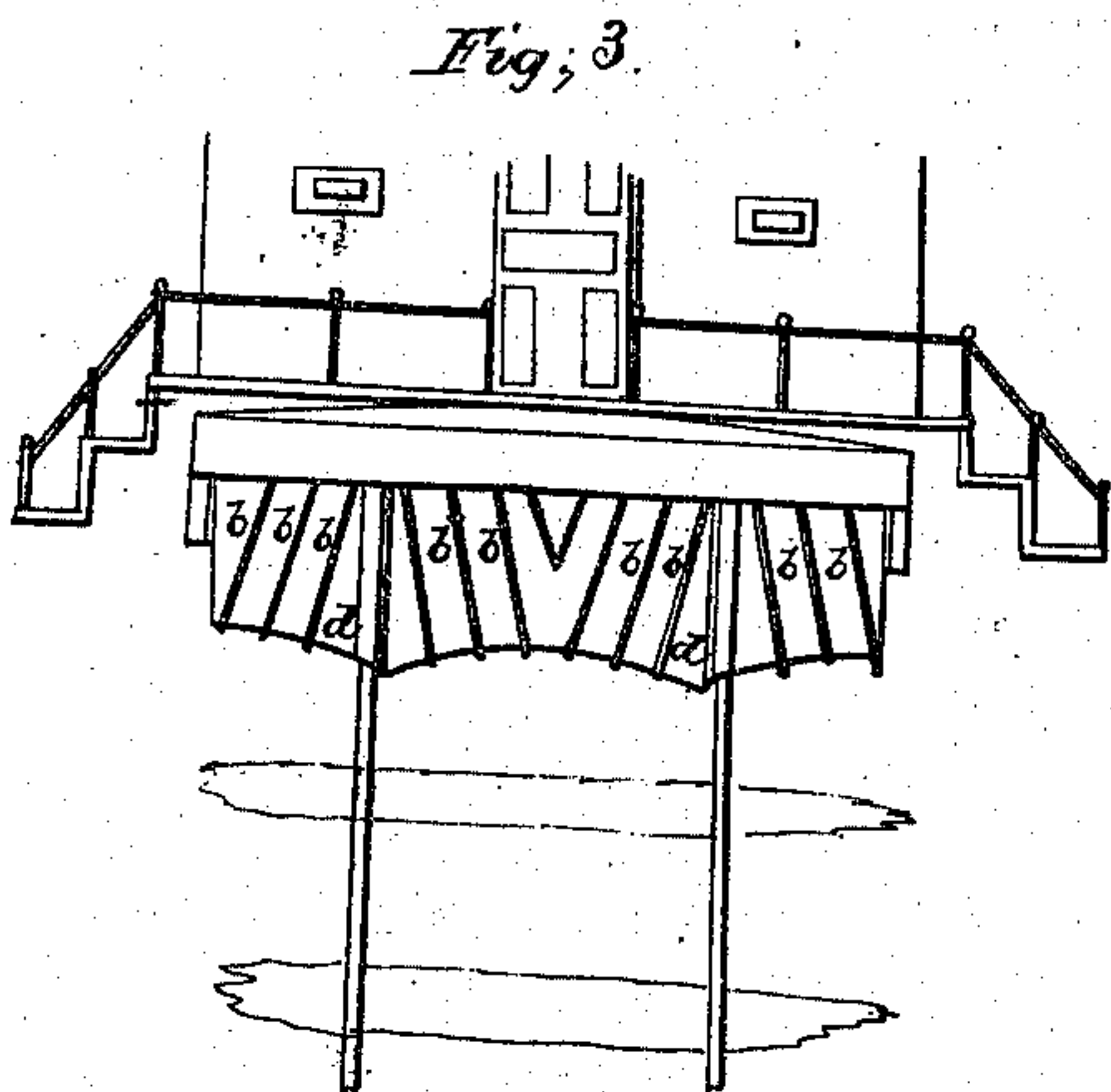
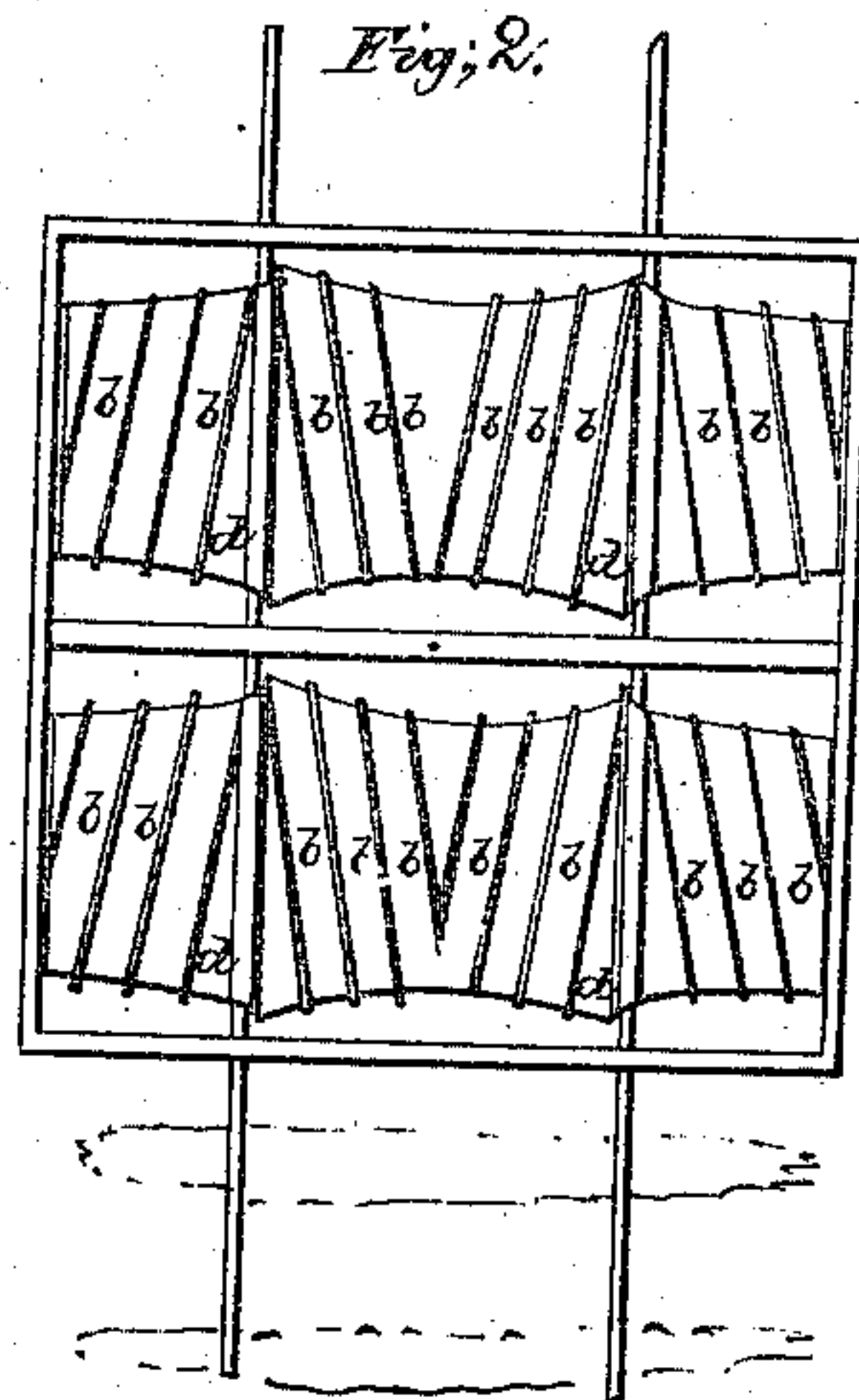
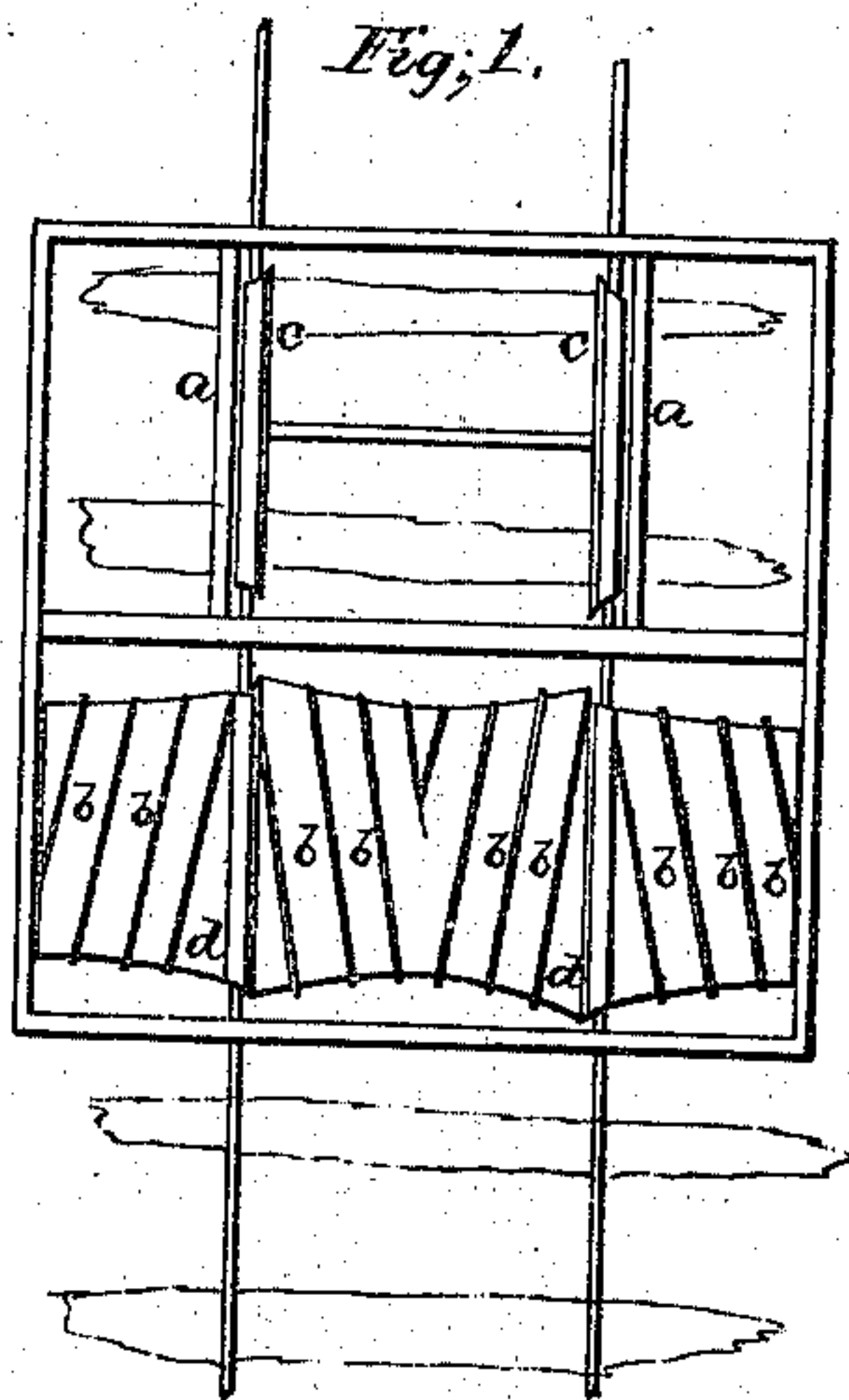


R. F. R. LEWIS.
CAR REPLACER.

No. 12,684.

Patented Apr. 10, 1855.



Witnesses;
Henry Leslie
M. R. Moore

Inventor;
Robert F. Lewis

UNITED STATES PATENT OFFICE.

ROBERT F. R. LEWIS, OF ANNAPOLIS, MARYLAND.

SPIRAL WHEEL FOR REPLACING RAILROAD-CARS UPON THE TRACK.

Specification of Letters Patent No. 12,684, dated April 10, 1855.

To all whom it may concern:

Be it known that I, ROBERT F. R. LEWIS, of Annapolis, in the county of Anne Arundel, State of Maryland, have invented a new and useful improvement on rail trucks or carriages for preventing the same from running off or being thrown from the track while in forward motion by applying thereto one or more cast or wrought iron hollow cylinders, threaded or wormed flanged on its exterior surface in the manner of a plane screw in place of the ordinary flange wheel; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 2 are perpendicular, 3 and 4 front views of truck frames, wheels, rollers &c., and Fig. 5, is a longitudinal section of the interior view of the cylinder.

I construct the frames of my trucks or carriages in any of the common or known forms, (with the addition of brace pieces *a, a*, Fig. 1, for axle box &c., where one cylinder only is used to each truck or carriage frame) and apply thereto, one or more cylinders, thread flanged in the manner *b, b, b* &c. as shown in Figs. 1 and 2, &c, made and constructed of cast or wrought iron and of the same diameter as the ordinary flanged wheels *c, c*, Fig. 1, at those parts or sections of its circumference which will come in contact with either rail, when properly adjusted to the track, as shown Fig. 2. At the center and ends, the diameters are to be gradually decreased to give a clearance in the middle, and on both outsides of the track, the distances of the wormed flanges or screw

threads *b, b, b* &c. around the cylinder barrel, are to be so regulated (depending on the width of rail iron) as not to jam the rail, and thereby prevent a free and proper action of the same, in cases of deflection Fig. 4, of wheel proper, or traveling section *d, d*, of cylinder barrel from the track, and in depth and thickness, to correspond with that of the ordinary wheel flange, the thickness of metal composing the cylinder barrel, to be the same as now used in the construction of the tread of the ordinary flange wheel, and to be supported internally, by spokes or solid divisions *e e e* &c. Fig. 5, having an axle *m*, extending through its entire length, and projecting at either end *n, n*, for placing axle box &c.

When by deflection of wheel proper, or traveling sections of cylinder barrel, *d, d*, Fig. 4, from the track the wormed flanged or screw threads, *b, b*, &c. acts or binds against either rail, and by the instantaneous revolution of cylinder barrel, in forward motion, it is readjusted to the track.

What I claim as my invention and desire to secure by Letters Patent, is—

The application of one or more, cast or wrought iron hollow cylinders, wormed flanged or screw threaded on their exterior surfaces in the manner of a plain screw, to rail trucks or carriages, in place of, or in combination with the common or ordinary flange wheel, as herein described, and thereby prevent the same from running off, or being thrown from the track, while in forward motion.

ROBT. F. R. LEWIS.

Witnesses:

M. R. MOORE,
H. P. LESLIE.