(Model.)

F. M. SANDERSON.

CARRIAGE COUPLING.

No. 262,986. Patented Aug. 22, 1882.

FIG. 1.

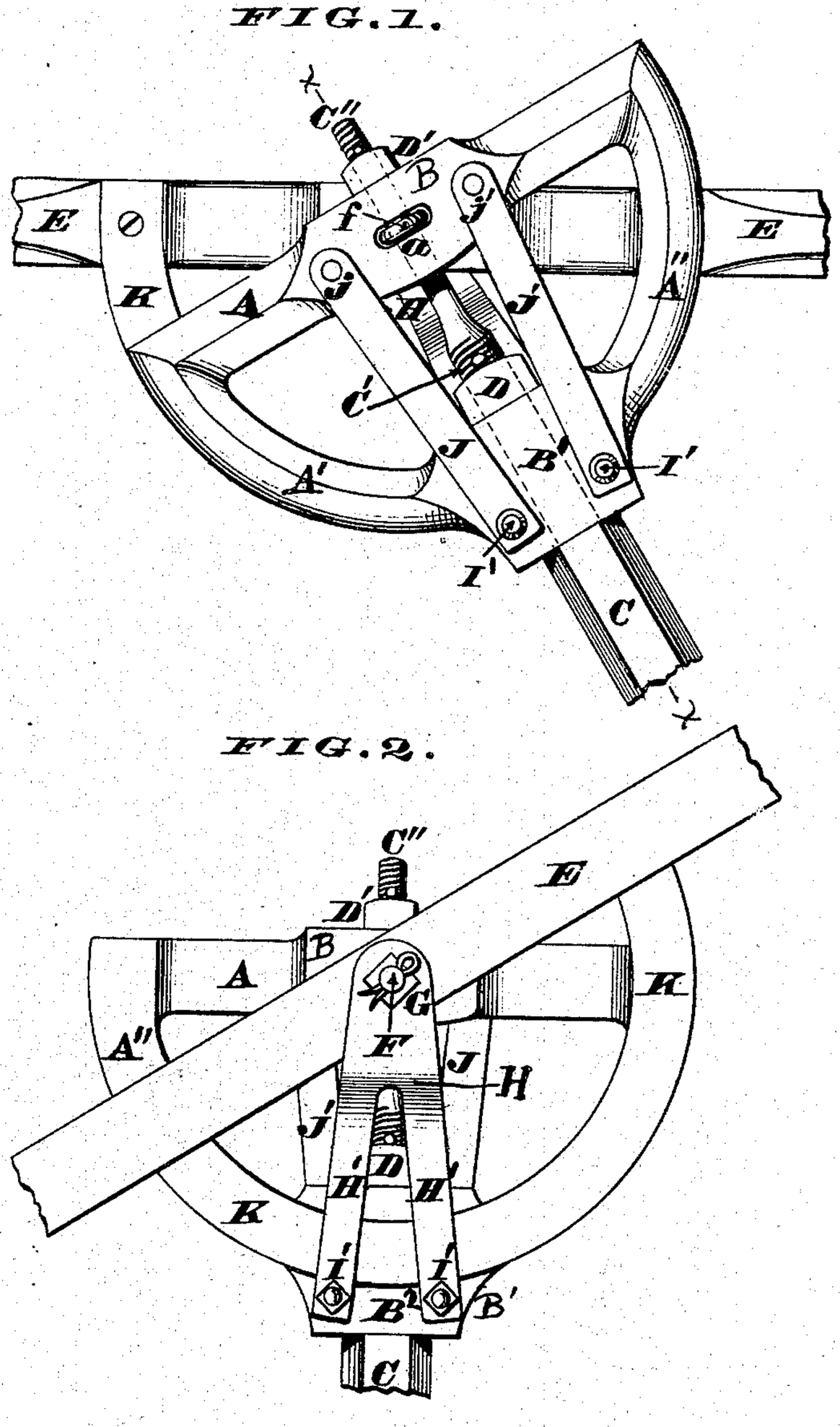

FIG. 2.

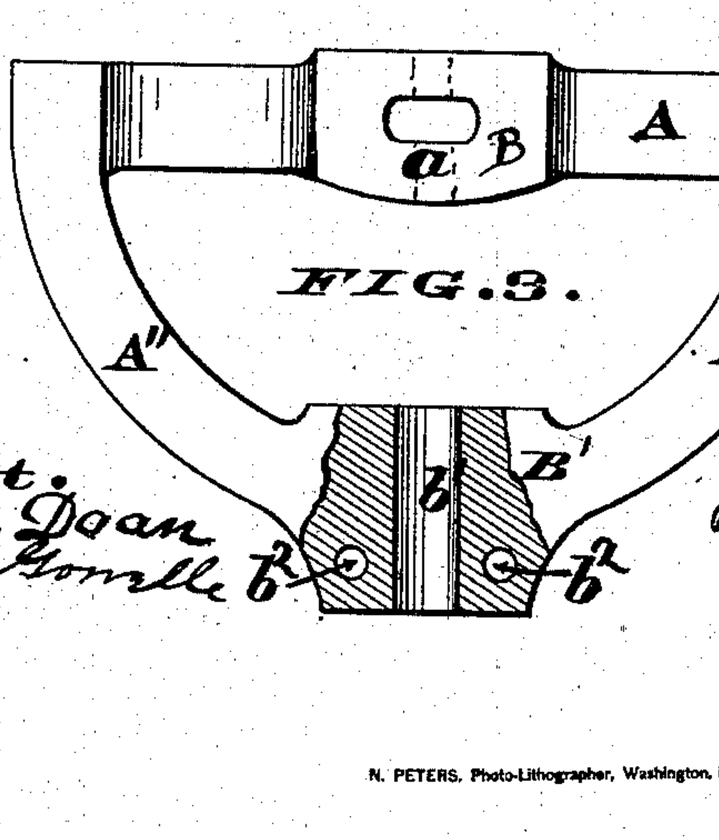

FIG. 3.

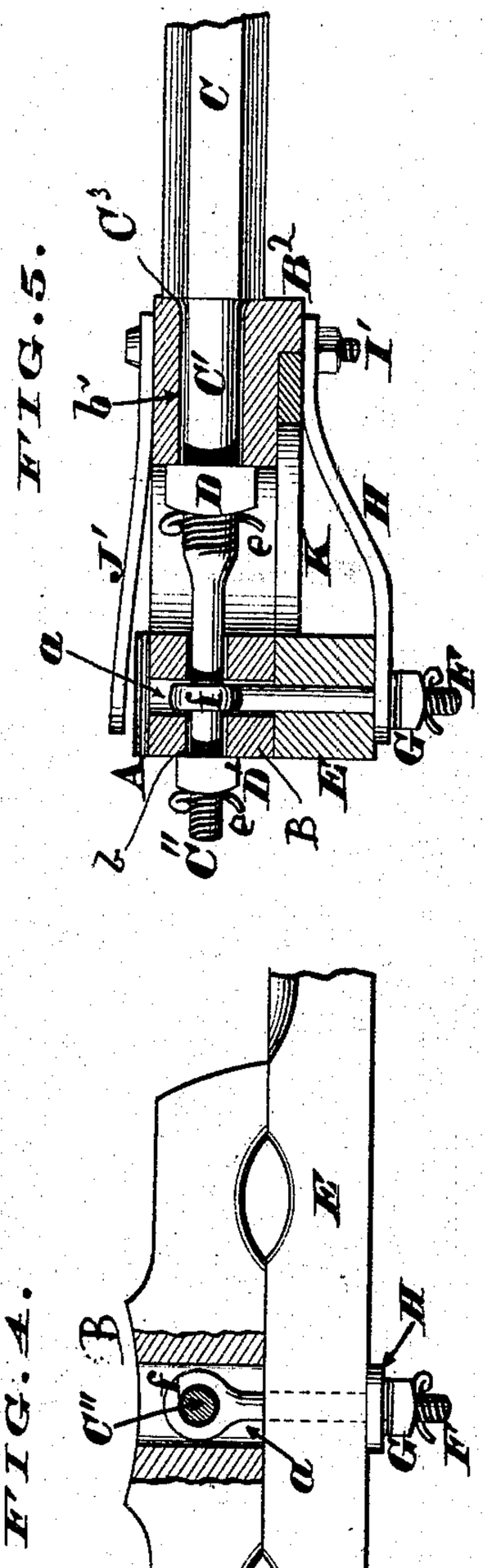

FIG. 5.

FIG. 4.

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FOSTER M. SANDERSON, OF WARREN COUNTY, OHIO.

CARRIAGE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 262,986, dated August 22, 1882.

Application filed April 27, 1882. (Model.)

To all whom it may concern:

Be it known that I, FOSTER MOORE SANDERSON, of the county of Warren and State of Ohio, have invented a new and useful Rotary Buggy or Carriage Coupling, the same never having been used or patented to my knowledge, of which the following is a specification.

This invention has for its object to furnish a new and improved head-block or coupling for buggies and other vehicles, whereby the perch is connected to the front axle.

It consists in a semicircular coupling-frame provided with enlargements on its front and rear sides, provided with bearings for holding the end of the perch, the perch having its ends rounded to fit the bearings in the frame and retaining and adjusting nuts placed on the perch.

It consists, further, in the construction of the head-block or coupling-frame with a vertical opening made large enough to permit the head of the king-bolt to drop down into it, and in the king-bolt having an eye through which is put the forward end of the perch; and it consists, further, in the construction and arrangement of the several parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a plan. Fig. 2 is a view of the under side of the mechanism shown in Fig. 1. Fig. 3 shows the under side, part in section, of the semicircular frame. Fig. 4 is a front elevation, part in section, showing the king-bolt and end of the perch; and Fig. 5 is a vertical section on lines *x x*, Fig. 1.

E is the front axle, to which is secured the semicircular bearing-plate K.

A is the semicircular coupling-frame, which is placed upon and turns on the bearing-plate K. It is provided with enlargements B B′, through which are formed the round bearings *b b′* for the reception of the end of the perch. It is also provided with the elongated vertical opening *a*, made in the forward enlargement, B, adapted to receive the king-bolt. The king-bolt opening crosses the track of the forward perch opening or bearing, *b*. The bearings *b b′* are made of different diameters, and are adapted to receive the round extension of the perch C.

C is the perch, the forward end of which is provided with the round extensions C′ C″, so formed as to provide a shoulder, C^3, which abuts against the rear enlargement, B′, of the frame A. The end of the perch is rounded to provide the portion C′, which fits snugly in the larger bearing, *b′*, in the rear enlargement, and so as to provide the smaller portion, C″, which fits snugly in the smaller bearing, *b*, in the forward enlargement, B, and projects out of said bearing on the front of said enlargement, as shown. The projecting end of the portion C″ is provided with a thread to receive a nut, D′, which, when in place, bears against the front edge of the frame A. The larger portion, C′, also projects or extends beyond the front edge of the enlargement B′, and is threaded to receive a nut, D. The nuts D D′ and the abutting shoulder C^3 make a secure fastening for and at the same time permit the free turning of the perch in its bearings. The king-bolt F is provided with an eye, *f*, through which the portion C″ of the perch passes, as shown. The eye of the king-bolt drops down into the vertical opening *a*, and is entirely out of the way. The rear enlargement, B′, is made with a projection, B^2, which extends downward in rear of the semicircular bearing-plate K, and it is provided with a bearing on its front edge, in which the said plate K fits snugly and turns.

H is a bifurcated brace, the forward end of which is provided with a bolt-hole, which slips over the lower end of the king-bolt below the axle E. The wings or arms H′ H′ of this brace are bent upward and carried under and against the semicircular plate K, and under the downward projection B^2 of the rear enlargement, B′. The ends of the arms H′ H′ are secured to the enlargement B′ by bolts I′. The ends of the arms H′ H′ bear on the under side of the plate K and keep the latter snugly in the bearing made by the extension B^2. It will be seen that the several parts being secured together, as hereinbefore described, no movement can take place, except the rotary movement of the frame A on the plate K and the rotating movement of the perch in its bearings in the said frame A.

J J′ are two braces, the forward ends of which rest on the top of the forward enlargement, B, to which they are made fast by the bolts which pass through the holes *j j′* and extend upward for the purpose of securing the sand-board in place. These braces are extended back to the enlargement B′, and are secured by the bolts

I′ I′. The braces lying between the sand-board and the end B of the frame A protect the latter from injury. They give a support to the intermediate or middle of the sand-board bolts, and prevent the latter from injuring the frame A by sudden jerks.

A device constructed after the manner hereinbefore described is durable and efficient in its operation.

The nuts or washers D D′ can be held in place by small keys *e e* put through holes made to receive them. If the keys be employed, the threading of the perch can be dispensed with. The threads and keys may both be employed, if desired.

What I claim is—

1. The combination of the frame A, having the front enlargement, B, provided with the perch-bearing *b*, rear enlargement, B′, having the larger perch-bearing, *b′*, the perch C, provided with the shoulder C³, the portion C′, and portion C″, having their ends threaded, and bearing nuts or washers D D′, and means for holding said nuts in place, substantially as set forth.

2. The combination of the frame A, provided with a king-bolt opening and an opening to receive the end of the perch, a king-bolt having an eye on its upper end and dropped down into the king-bolt opening in and below the upper surface of the frame A, and the reach provided with a cylindrical end inserted in the perch-opening in the frame and through the eye of the king-bolt and secured by suitable means, substantially as set forth.

3. The combination of the axle E, semicircular plate K, frame A, having the downward extension B², provided with a semicircular seat or bearing, and the brace H, having one end secured in the king-bolt and its other end bent to bear on the under side of the plate K and made fast to the extension B², substantially as set forth.

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