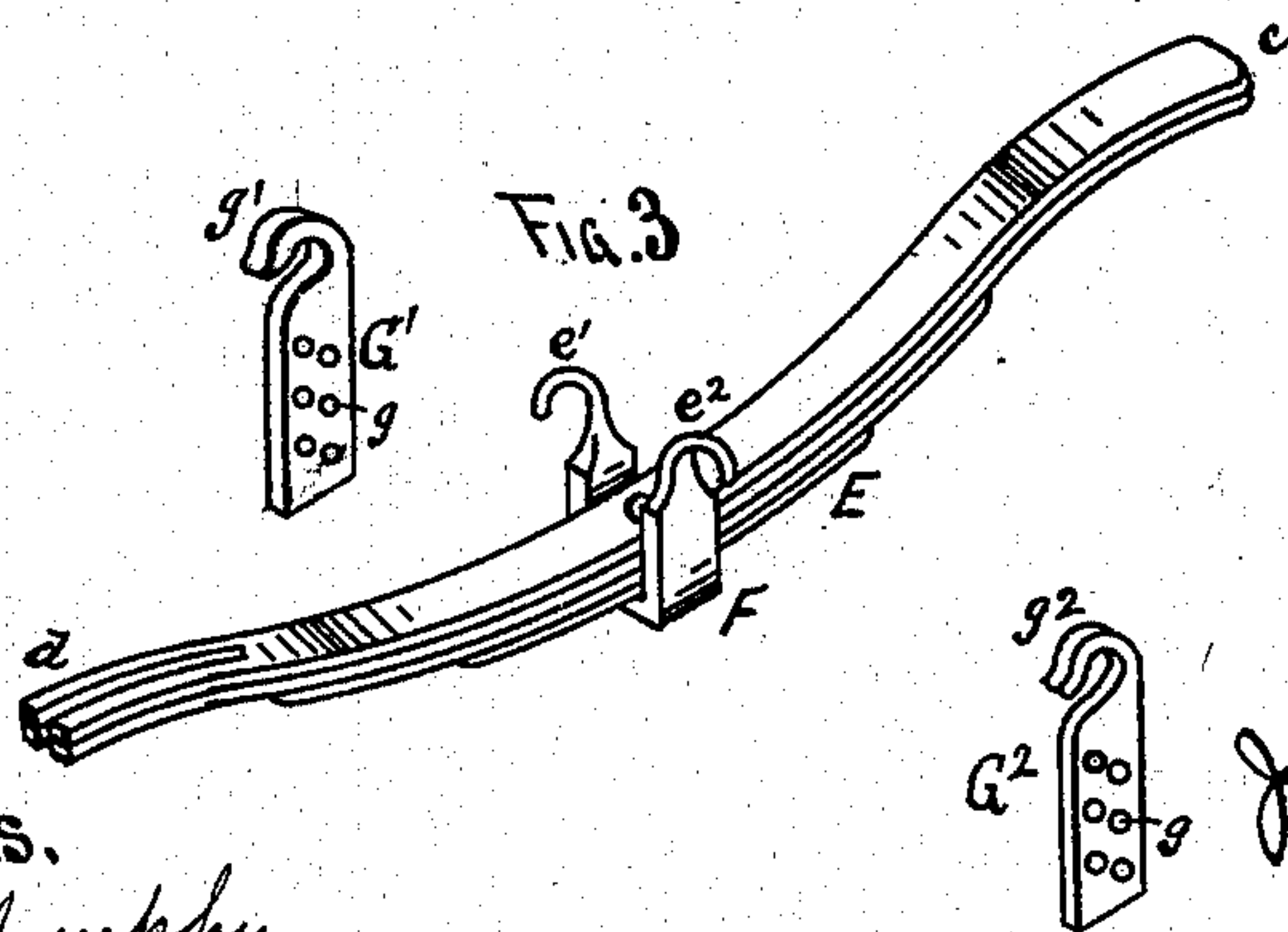
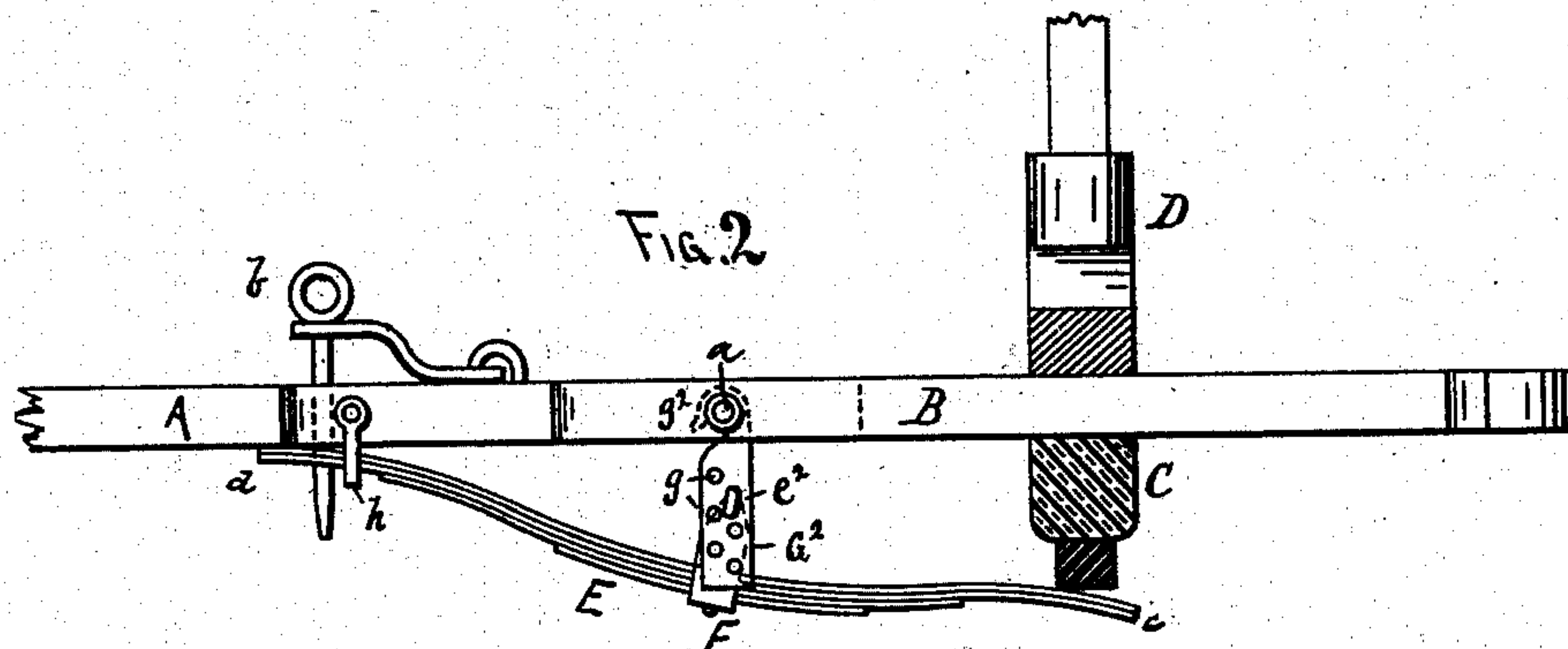
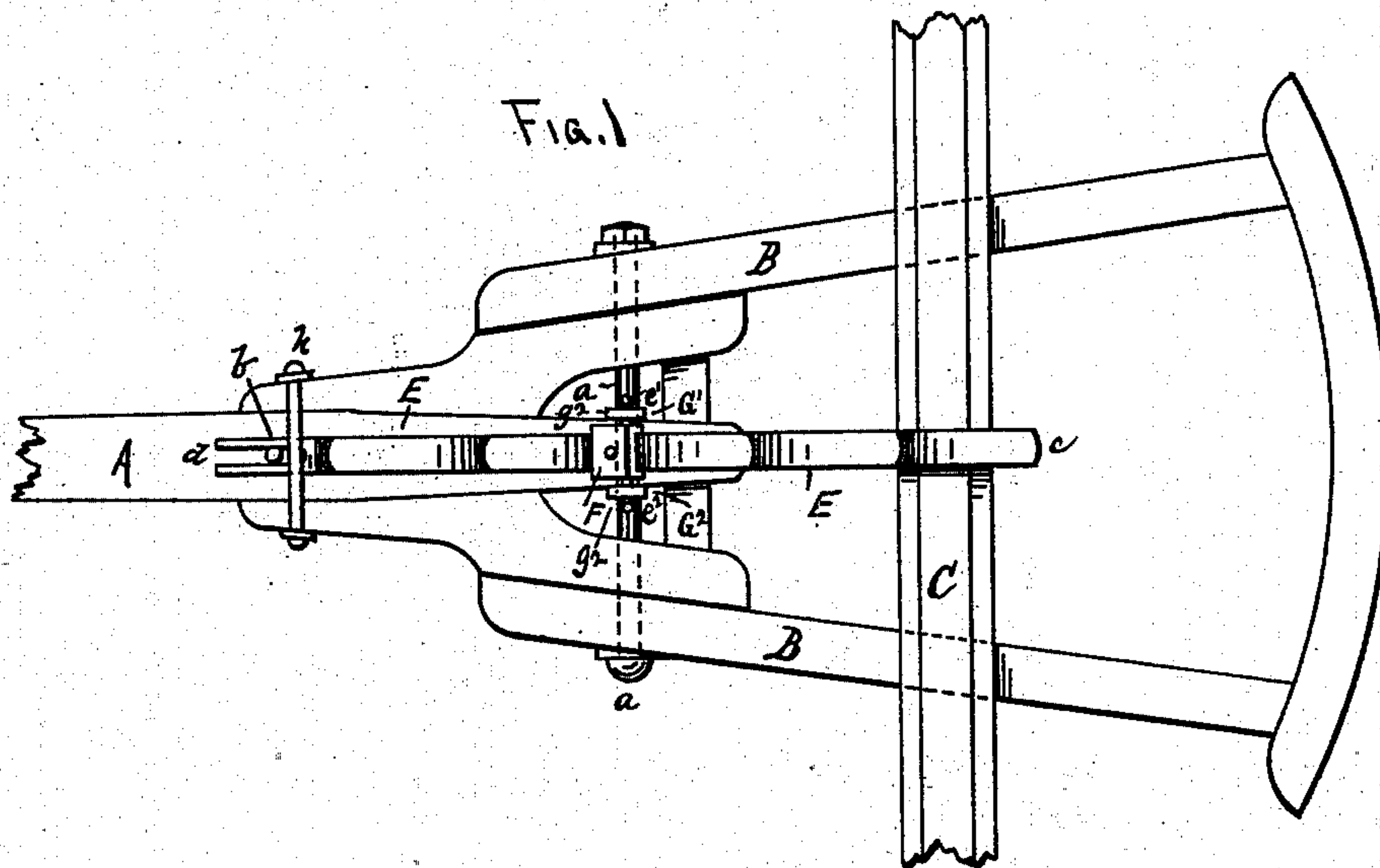


(No Model.)

J. R. CHADWICK.
WAGON TONGUE SUPPORT.

No. 288,407.

Patented Nov. 13, 1883.



WITNESSES.
Daniel Murphy
Louis Fisher Jr.

Jay Richman Chadwick,
INVENTOR, BY
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Attys.

UNITED STATES PATENT OFFICE.

JAY R. CHADWICK, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO
MARSHALL SHERMAN, OF SAME PLACE.

WAGON-TONGUE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 288,407, dated November 13, 1883.

Application filed July 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAY RICHMAN CHADWICK, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey, in the State of Minnesota, have invented certain new and useful Improvements in Wagon-Tongue Supports, of which the following specification is a full, clear, and exact description, reference being also had to the accompanying drawings, in which—

Figure 1 is a plan view from the under side, and Fig. 2 is a side view of the hounds, a portion of the forward axle, and bolster, and a portion of the tongue of a wagon, showing my improvement attached thereto. Fig. 3 are perspective views of the spring and adjustable hinges detached.

A is the tongue, B the hounds, C the axle, D the bolster, *a* the bolt by which the tongue is secured to the hounds, and *b* the pin by which the double-tree is attached to the tongue, all arranged as in an ordinary two-horse wagon.

E is a spring, formed of one or more steel leaves, in the same manner as an ordinary wagon-spring, and with one end, at *e*, resting beneath the axle C, and the other end forked at *d*, and passing upon either side of the lower end of the single-tree pin *b*, as shown.

F is a clip by which the leaves of the spring E are connected together at the center, and arranged to project upward upon each side of the spring, and provided with hooks *e'* *e''*.

G' G² are two flat plates, having perforations *g*, into which the hooks *e'* *e''* may be set, and hooks *g'* *g''* upon their upper ends, adapted to catch over the rod *a* upon each side of the rear end of the tongue A, as shown. By this means the spring and tongue are connected together and the forward end of the tongue held at the proper elevation to prevent its weight coming upon the horses' necks, while at the same time the spring will give sufficiently if any extra downward force is brought to bear upon it.

By setting the hooks *e'* *e''* higher or lower in the holes *g* of the plates G' G², the spring F may be made to bear with greater or less force, to support the tongue higher or lower, to adapt it to the size of the horses, or to take up any loss of power occasioned by the weakening or bending of the spring. By this simple arrangement the spring may be adjusted to suit any-sized horses or wagon.

The holes *g* in the plates G' G² will be arranged alternately, as shown, so that the spring may be adjusted to as limited an extent as desired.

The hooked plates G' G² may be connected to any suitable part of the tongue or hounds other than the bolt *a*, if desired; but I prefer them attached as shown.

By means of the forked end *d*, the spring will be held in its proper place with relation to the axle and tongue. A separate pin may be set into the lower side of the tongue A, upon which the fork *d* may run, and the rear end, *e*, may be arranged to rest beneath any suitable part of the wagon other than the axle C.

A small clip or strap, *h*, will be attached to the tongue A, to rest beneath and support the forked end *c* of the spring E, to prevent the jarring motion of the tongue or wagon from shaking it from its position with relation to the pin *b*.

Having described my invention and set forth its merits, what I claim is—

The combination of the tongue A, hounds B, axle C, spring E, having hooked clip F, and perpendicular hooked plates G' G², provided with adjusting-holes *g* *g*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAY RICHMAN CHADWICK.

Witnesses:

C. N. WOODWARD,
LOUIS FEESER, Sr.