

W. G. HUGHES.
Wagon Spring.

No. 230,281.

Patented July 20, 1880.

Fig. 1.

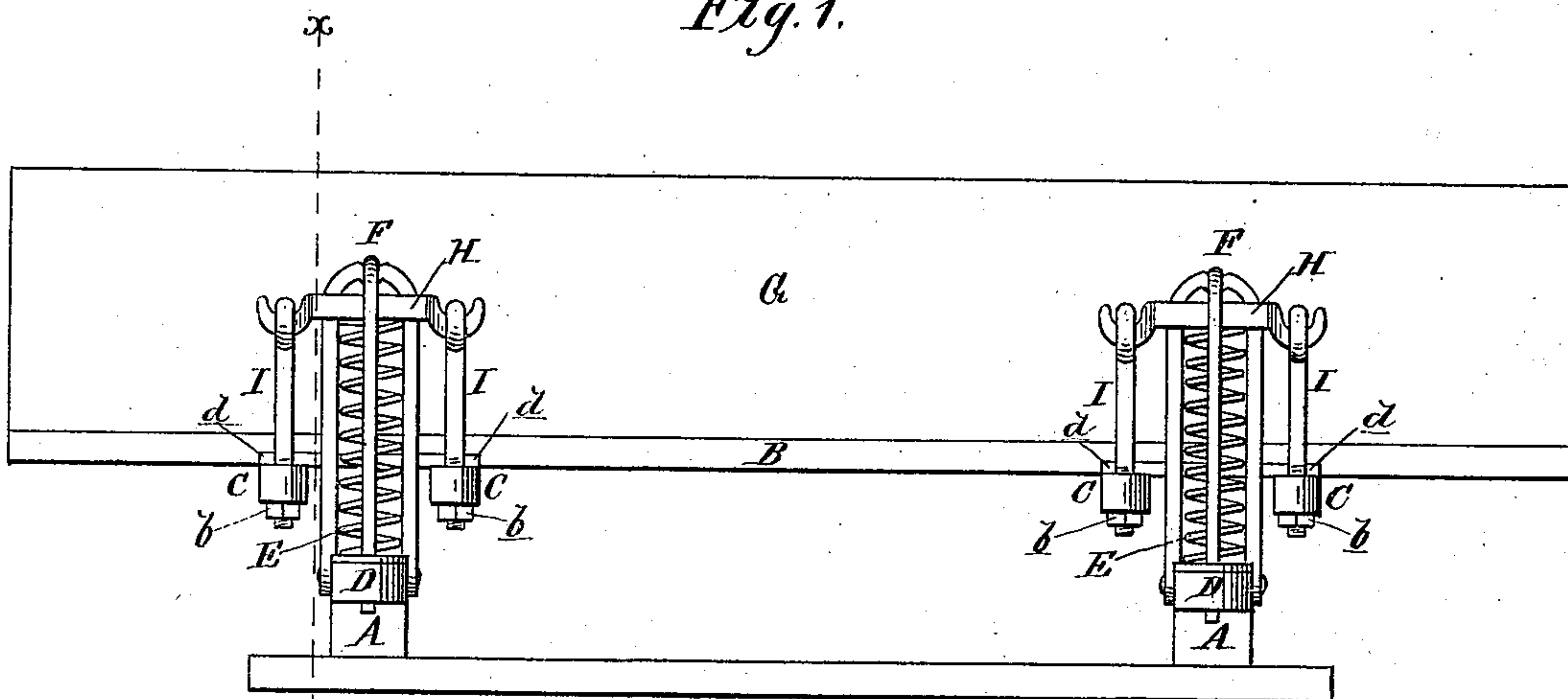


Fig. 2.

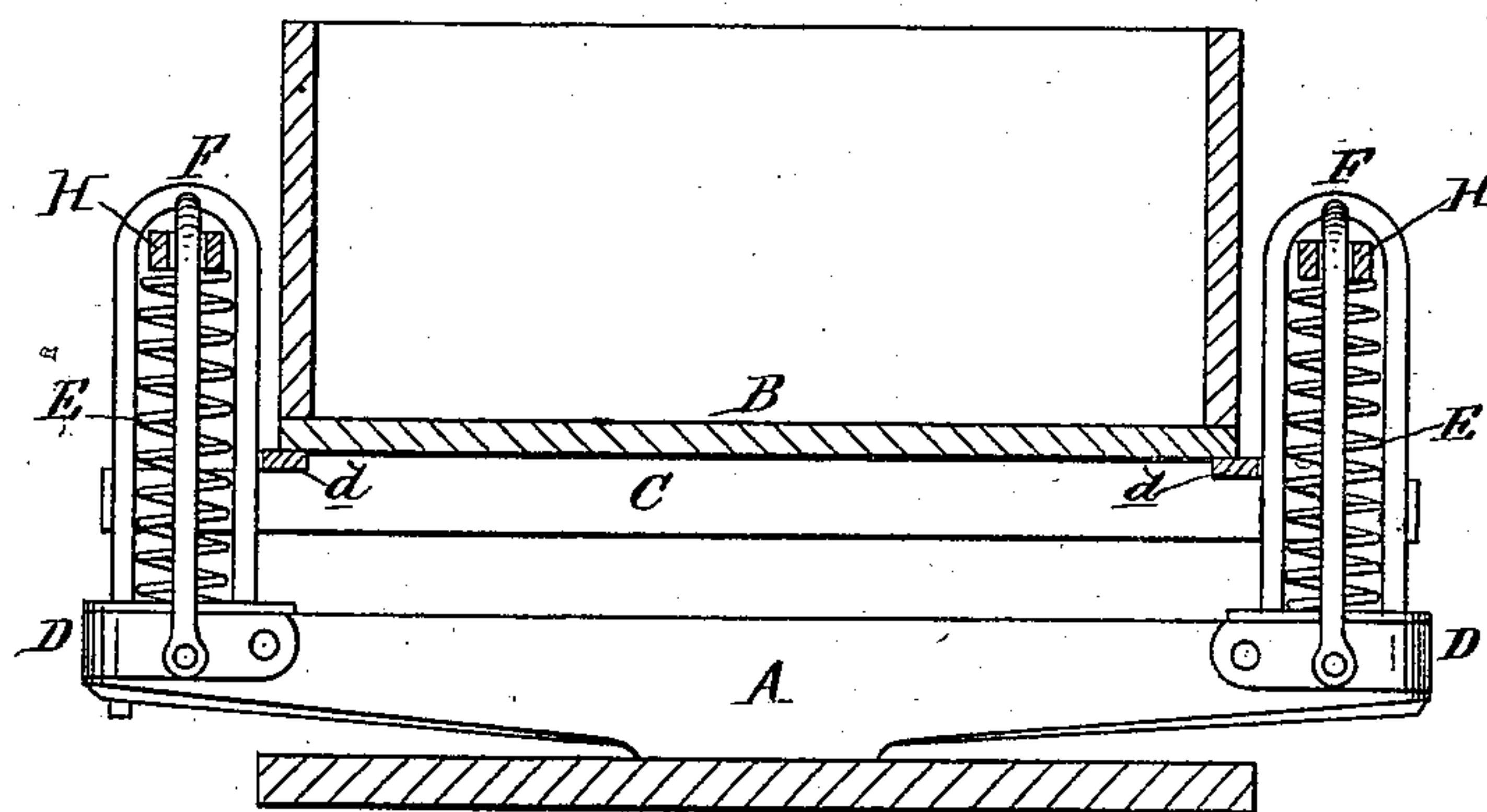
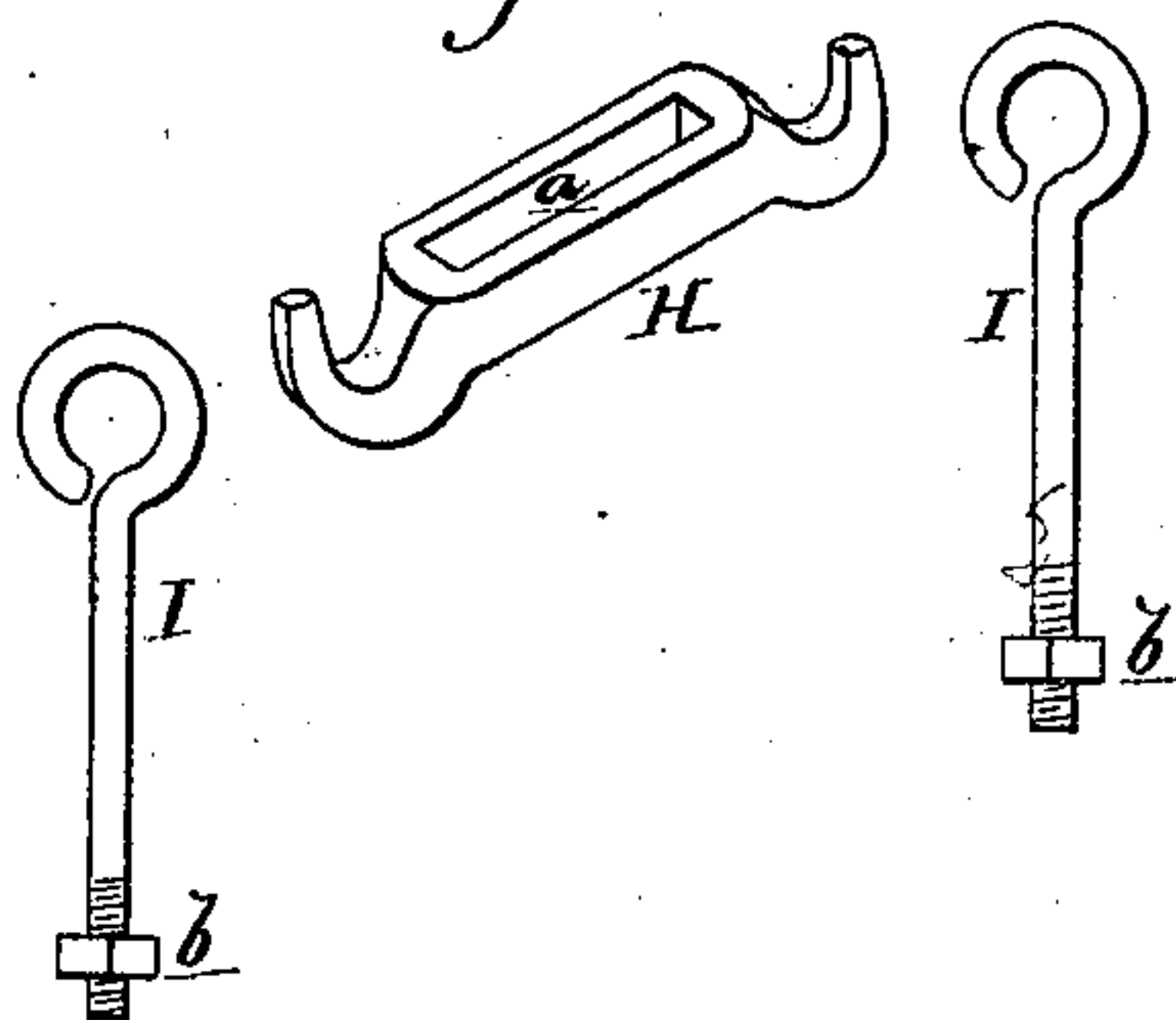


Fig. 3.



WITNESSES:

Henry N. Miller
C. Dagwick

INVENTOR:

W. G. Hughes

BY

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM G. HUGHES, OF CHURUBUSCO, INDIANA.

WAGON-SPRING.

SPECIFICATION forming part of Letters Patent No. 230,281, dated July 20, 1880.

Application filed December 12, 1879.

To all whom it may concern:

Be it known that I, WILLIAM G. HUGHES, of Churubusco, in the county of Whitley and State of Indiana, have invented a new and Improved Wagon-Spring, of which the following is a specification.

Figure 1 represents a side elevation of the springs attached to a wagon. Fig. 2 is a sectional elevation of the same on line *x x*, Fig. 1. Fig. 3 represents views of the yoke and eyebolts.

Similar letters of reference indicate corresponding parts.

The object of this invention is to construct a novel and efficient spring that shall also serve as a side bar or stake to a wagon.

The invention consists of a spiral spring set on the end of a wagon-bolster and held in a vertical position in a frame-work of arched rods, while resting centrally on the top of the spring is a slotted yoke, from the ends of which depend two eyebolts or clips and links, that pass down to or through cross-bars which extend laterally from beneath the wagon-bed, and thereby support the wagon-body.

In the drawings, A represents the bolsters, B the wagon-bed, and C the cross-bars attached to the under side of the bed B, and held together in pairs by the plates *d*.

On the bolster ends are set the plates D, on which rest the spiral springs E, which are inclosed and held in a vertical position by the two upright arched rods F, whose ends are fastened in or upon the bolster ends, as shown.

One of these rods F is arched in a plane parallel with the sides G of the wagon, and the other is arched over and at right angles to the first. The yokes H, provided with a slot, *a*, are set over the first of these rods F in a position parallel with the wagon sides G and un-

der the arch of the other rod F, so as to rest upon the spiral springs E, and on each hooked end of the said yokes H are suspended the eyebolts I or clips and links, that pass down to or through the projecting ends of the cross-bars C. Nuts *b*, screwed on the ends of these eyebolts I, will hold them in place, and thus the wagon-bed B will be suspended from the yokes H, which rest on the springs E.

This device, extending upward at the sides of a wagon-body, serves also as an excellent substitute for the usual side bars or stakes that are designed to prevent excessive lateral motion of the wagon-bed; and a further advantage of this device is, that all the space between the bed of a wagon and the bolster is free for the motion of the wagon-body.

These springs E and their inclosing-rods F can be made of any length that may be desired to allow greater or less vertical movement to the wagon-body; and the device is cheaper and more durable than the ordinary elliptic springs in use for such purpose.

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

1. The spiral spring E, inclosed in a frame upon the end of the bolster A, in combination with the said bolster, the yoke H, the eyebolts or clips and links I, and the wagon-body G, substantially as shown and described.

2. The combination of the spiral spring E, the arched rods F, and the slotted yoke H with the bolster A, the eyebolts or clips and links I, and the wagon-body G, substantially as shown and described.

WILLIAM G. HUGHES.

Witnesses:

EDWARD A. MOSSMAN,
R. N. PRATT.