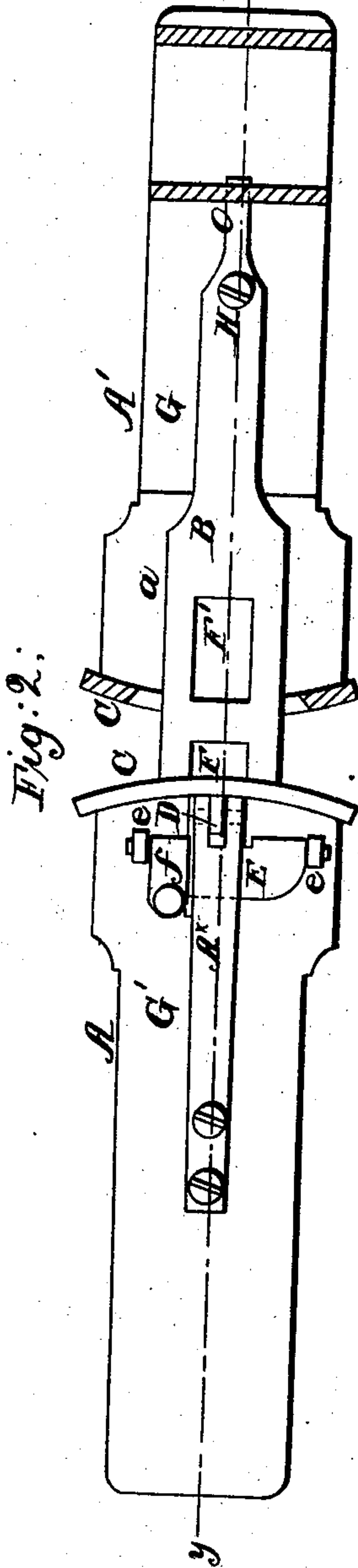
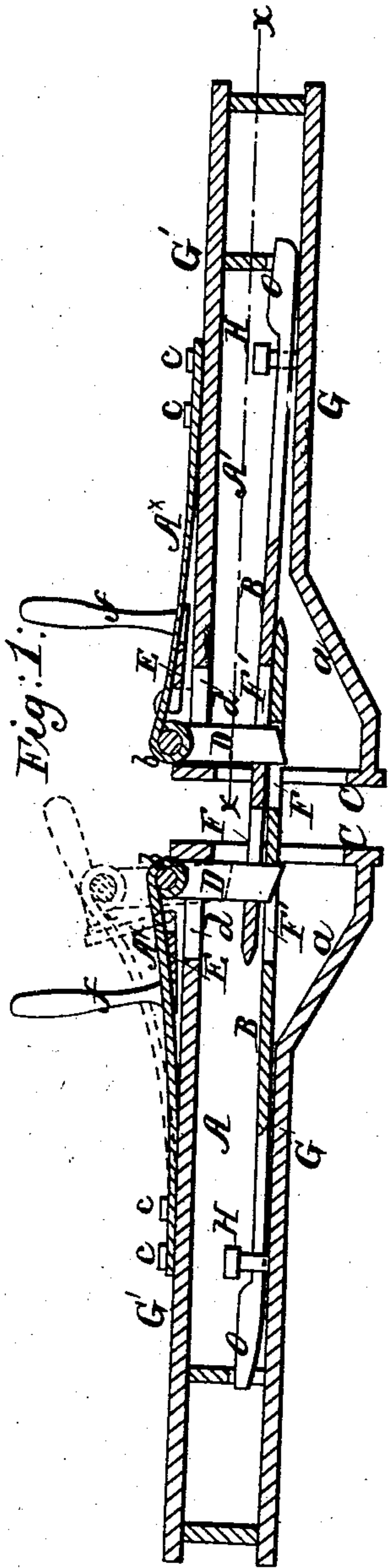


E. T. Barlow,
Car Coupling.

No. 39,373.

Patented Aug. 4, 1863.



Witnesses;
J. W. Coombes.
E. W. Reed.

Inventor;
E. T. Barlow
per Munn & Co
attorneys.

UNITED STATES PATENT OFFICE.

ELISHA T. BARLOW, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 39,373, dated August 4, 1863.

To all whom it may concern:

Be it known that I, ELISHA T. BARLOW, of San Francisco, in the county of San Francisco and State of California, have invented a new and Improved Self-acting Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal central section of my invention, taken in the line *y y*, Fig. 2; Fig. 2, a plan or top view of one draw-head of the same, and a horizontal section of the latter, as indicated by the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of a tongue fitted in each draw-head, and provided with two slots or openings, an oscillating adjustable pin, and a pin-elevating plate, all arranged in such a manner that the two draw-heads, when they come in contact, will be coupled together, and the draw-heads rendered capable of being very readily uncoupled when desired.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A' represent two draw-heads, which may approximate to the form of those in general use, with the exception that the front parts of the lower plates, G, are inclined, as shown at *a*, said inclined parts projecting downward from their back to their front ends, as shown clearly in Fig. 1. These inclined parts *a* extend back from seven to ten inches from the heads C of the draw-heads, and the openings in the heads C may be from six to seven inches square, larger or smaller in proportion to the draw-heads as occasion may require. In each draw-head there is secured a horizontal tongue, B. These tongues are secured at their back ends to the lower plate, G, of the draw-heads by bolts H, or in any other proper manner, and the outer ends of the tongues are rounded in semicircular form and beveled to form a sharp edge, so as to prevent the ends of the tongues from striking against each other, or rather to cause them to slip past one over the other when they come in contact. From three to six inches from the ends of the tongues B there is an oblong mortise, F, from three and

one-half to four and one-half inches in length, and from two and one-half to three and one-half inches in width. From two and one-half inches to three and one-half inches from the mortises F there are made other mortises, F', of the same size as the others, F. These latter may be termed the "draft-mortises," and their front edges should be in line with the inner sides of the heads C of the draw-heads. The tongues B may be from twenty to thirty inches in length, and from three-fourths of an inch to one and a quarter inch in thickness, and from four to six inches in width, as may be required, and a spring, O, or elastic projection may be attached to the inner end of each tongue B. The draw-heads A A' may be from two to three feet in length, as required.

D D represent oscillating pins, the upper ends of which are connected by joints *b* to the front ends of springs A'. These pins may be from four to six inches in length, and one and one-half to two and one-half inches in width, and from three-fourths of one inch to one and one-half inch in thickness. The length of the pins D is governed by the distance from the joints *b* to the lower surfaces of the tongues B, not reaching below. When the springs A' are down and the tongues B in their natural position, the pins D are rather wider at their lower than at their upper ends, and they are allowed to swing freely by means of their joints *b*, so that they may drop into the mortises F F' as the two draw-heads come in contact. The springs A' may be from eight to fifteen inches in length, and from two to two and one-half inches in width. These springs may be made of spiral form, if desired; but I prefer the flat springs represented in the drawings. These springs are secured at their back ends to the upper plates, G', of the draw-heads by bolts *c*, and said springs admit of the pins D dropping through slots *d* in said plates G'.

This coupling is detached by placing under the front parts of the spring A' plates E, the ends of which are provided with pivots or journals, the latter being fitted in eyes *e* on the plates G'. Each plate is provided with a handle, *f*, for turning it and lifting the pins D. The plates E, of course, must be of sufficient width to lift the pins D free from the mortises in the tongues B.

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

The tongues B, provided with mortises F F', and fitted in the draw-heads A A', in combination with the oscillating pins D, connected to springs A^x, and the pin-elevating plates E,

all arranged to operate as and for the purpose herein set forth.

ELISHA T. BARLOW.

Witnesses:

ALEXANDER WARFIELD,
P. B. CORNWALL.