

(No Model.)

L. V. T. WILLIAMS & E. D. KNIGHT.

CAR COUPLING.

No. 253,800.

Patented Feb. 14, 1882.

Fig. 1

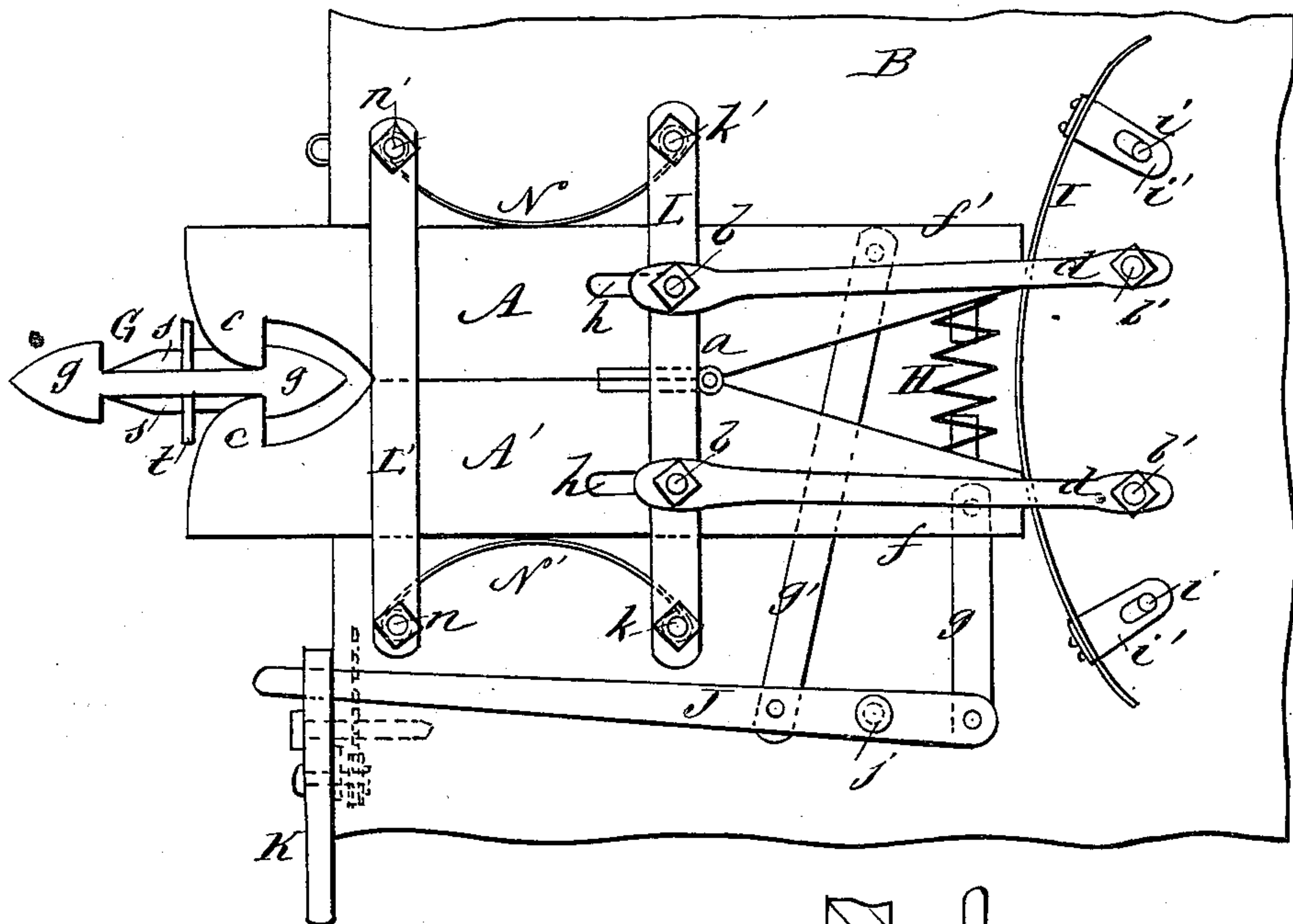


Fig. 5

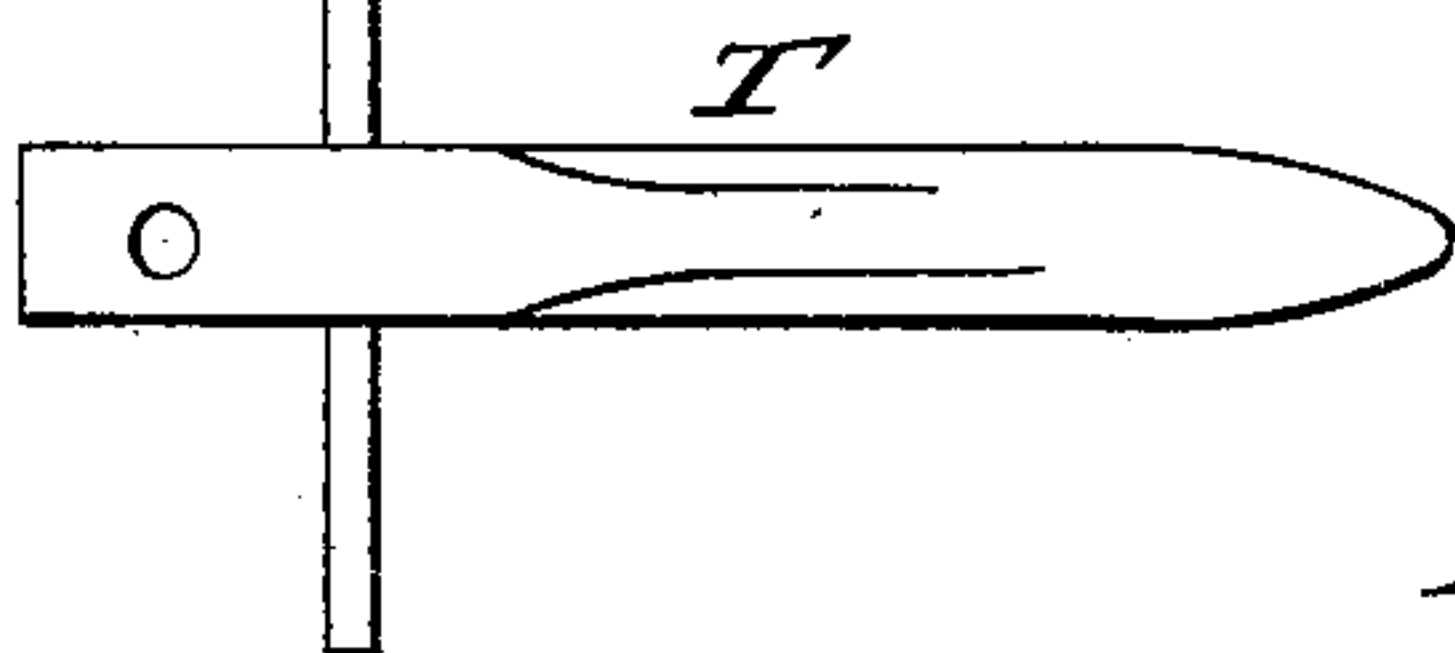


Fig. 4

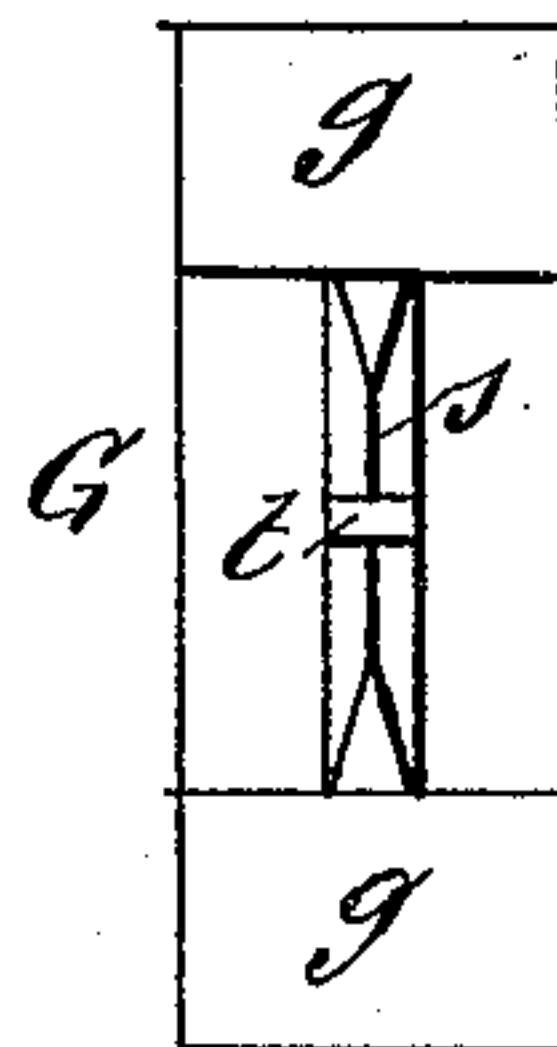


Fig. 2

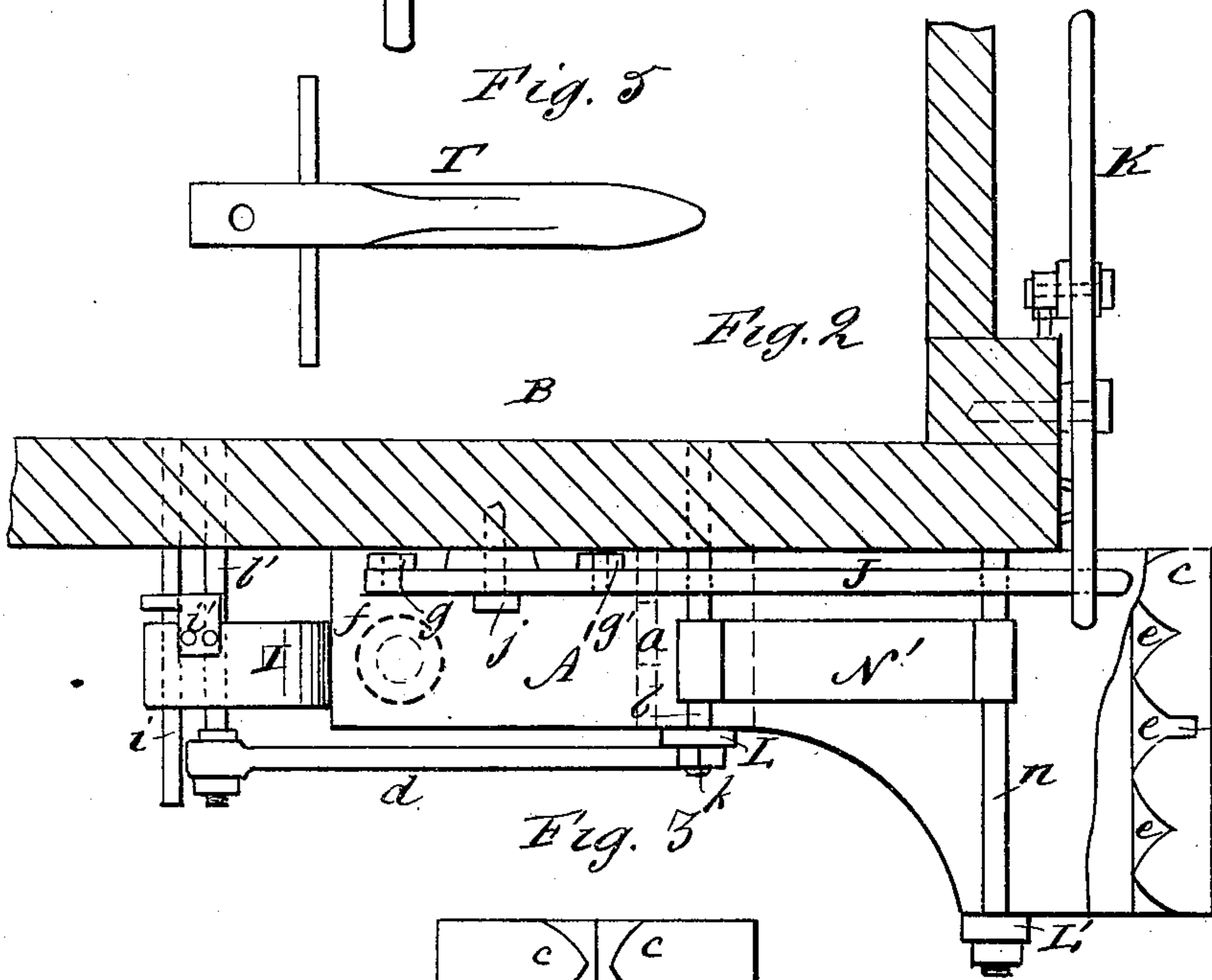
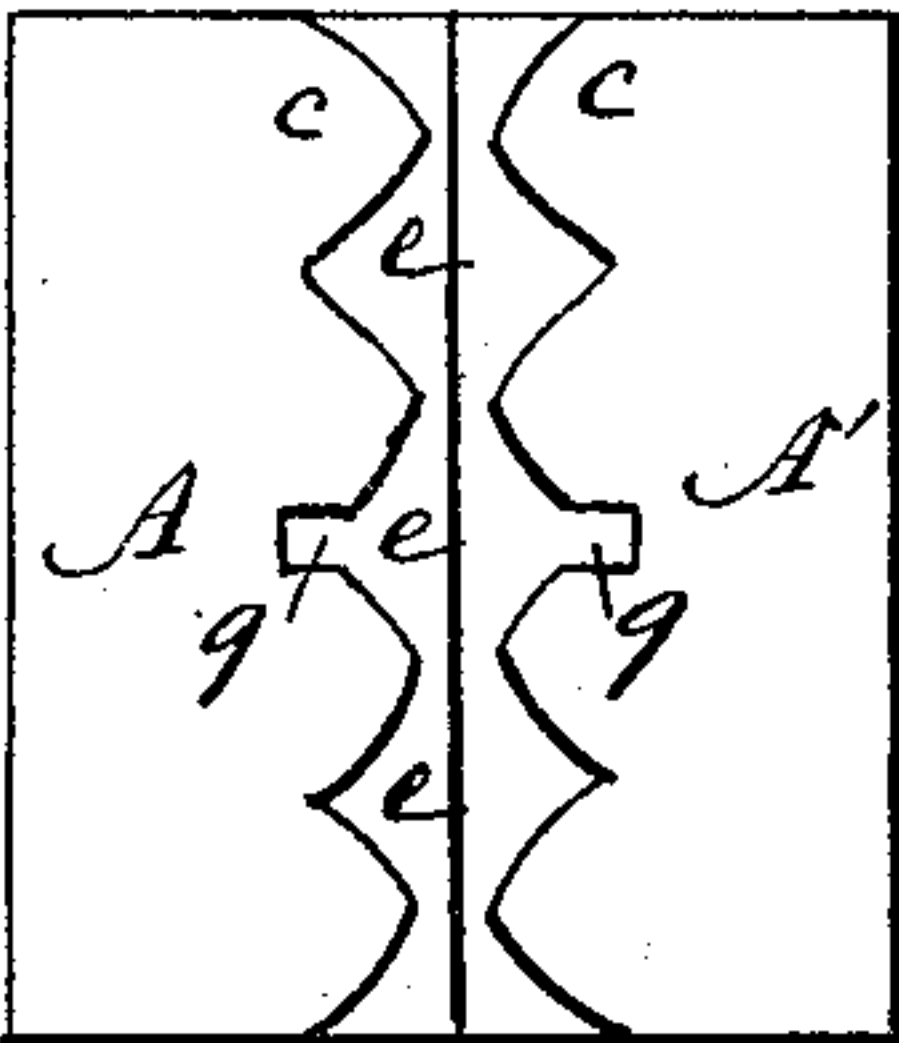


Fig. 3



WITNESSES:

C. Neveu
C. Sedgwick

INVENTOR:

L. V. T. Williams
E. D. Knight
BY Munn Ho

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LA VEGA T. WILLIAMS AND EDWIN D. KNIGHT, OF POSEYVILLE, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 253,800, dated February 14, 1882.

Application filed October 11, 1881. (No model.)

To all whom it may concern:

Be it known that we, LA VEGA T. WILLIAMS and EDWIN D. KNIGHT, of Poseyville, in the county of Posey and State of Indiana, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact specification.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a bottom view of our improved car-coupling. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation of the coupling-jaws. Fig. 4 is a side elevation of the headed connecting-link, and Fig. 5 is a side elevation of the connecting-bolt used when the ordinary coupling-link is used for coupling the cars.

A A' represent the coupling-jaws, which are hinged together by the hinge *a*. The forward ends of the jaws are cut away on their inner faces to form the coupling-hooks *c c*, which hooks are correspondingly serrated or cut away to form the series of openings or passages *e e* between the jaws for the passage of the head of the connecting-link *G*. The rear ends of the jaws are extended past the hinge *a*, as shown at *f f'*, and they have the coiled spring *H* placed between them, which serves to keep the forward ends of the jaws closed, except when they are opened for uncoupling the cars. To open the jaws for uncoupling the cars the rear ends of the jaws are provided with the connecting-bars *g g'*, which connect with the lever *J* upon opposite sides of the pivot *j*, which is fixed in the under side of the car-body *B*. The lever *J* is operated by the hand-lever *K*, which is pivoted in proper position for that purpose to the platform or end or side of the car. The jaws *A* and *A'* are formed with the slots *h h*, through which the bolts *b b* pass for securing the jaws in place on the car. Back of the jaws is placed the spring *I*, which acts as a buffer-spring to relieve the car of the shock when the cars are brought together for coupling. This spring is placed on the rods *i i*, above the tie rods or bars *d d*, which connect the ends of the bolts *b b* with the bolts *b' b'*, and this spring *I* is provided with the slotted ears *i' i'*, which are

placed upon the rods *i i*, for holding the spring in place. Upon the rods *b b*, above the connecting-rods *d d*, is placed the cross-bar *L*, the ends of which are placed upon the rods *k k'*, and this bar supports the jaws in the center. In front of this cross-bar *L* is placed the cross-bar *L'*, the ends of which are placed upon the rods *n n'*, and supports the forward ends of the jaws. Upon the rods *n'* and *k'*, outside of the jaw *A*, is placed the coupling-spring *N*, and upon the rods *n* and *k*, outside of the jaw *A'*, is placed the coupling-spring *N'*. These springs impinge against the jaws and hold them firmly together, except when the rear ends of the jaws are brought together by pressure upon the lever *K* for uncoupling the cars, as above mentioned.

The link *G* is of the form shown in Figs. 1 and 4, made with the heads *g g*, side fins, *s s*, and center piece or stop, *t*. The fins are beveled, so as to fit in the openings or passages formed by the serrations in the hooked front faces of the jaws. In case this link *G* is used, no connecting-bolt is necessary, as the heads of the link will be firmly grasped by the coupling-hooks of the connecting-jaws; but in case the ordinary form of connecting-link is to be used the bolt *T* (shown in Fig. 5) is to be used, which is adapted to pass down through the link behind the hooks *c c* of the connecting-jaws.

In order that an ordinary link may be used, the faces of the connecting-jaws are formed with the slots *q q*, which are of sufficient length to permit the passage of the link between the jaws sufficient distance for the passage of the bolt *T* through it to connect the cars. By this construction of coupler the cars may be automatically coupled without danger to the brakeman, and cars of different heights may be coupled without providing extra or special links, as is necessary with couplers in use.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a car-coupling, the coupling-jaws *A A'*, hinged together by the hinge *a* a little beyond the center of their length, and provided with hooks *c*, having their adjacent faces serrated or cut away to form a series of openings or

passages, *e*, substantially as and for the purpose set forth.

2. In a car-coupling, the combination, with the hinged coupling-jaws A A', provided with hook *c* and openings *e*, of the link G, provided with the heads *g*, the fins *s*, and the cross-bar *t*, substantially as and for the purpose set forth.

3. In a car-coupling, the combination, with the car-body B and hinged jaws A A', provided with the slots *h*, of the cross-bars L L', and the connecting-rods *d*, and the bolts *b b'*, *k k'*, and *n n'*, substantially as and for the purpose set forth.

4. In a car-coupling, the combination, with

the car-body B and the coupling-jaws A A', of the spring I, the slotted ears *i'*, and the rods *i*, substantially as and for the purpose set forth.

5. In a car-coupling, the combination, with the hinged coupling-jaws A A' and the bolts *k k'* and *n n'*, of the coiled spring H, between their rear ends, and the flat side springs, N N', substantially as and for the purpose set forth.

LA VEGA TRAFTEEN WILLIAMS.
EDWIN DEWIT KNIGHT.

Witnesses:

T. C. JAQUESS,
G. M. WILLIAMS.