No. 778,645. PATENTED DEC. 27, 1904.

H. EDELINE.

AUTOMATIC CARRIAGE JACK.

APPLICATION FILED MAR. 2, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

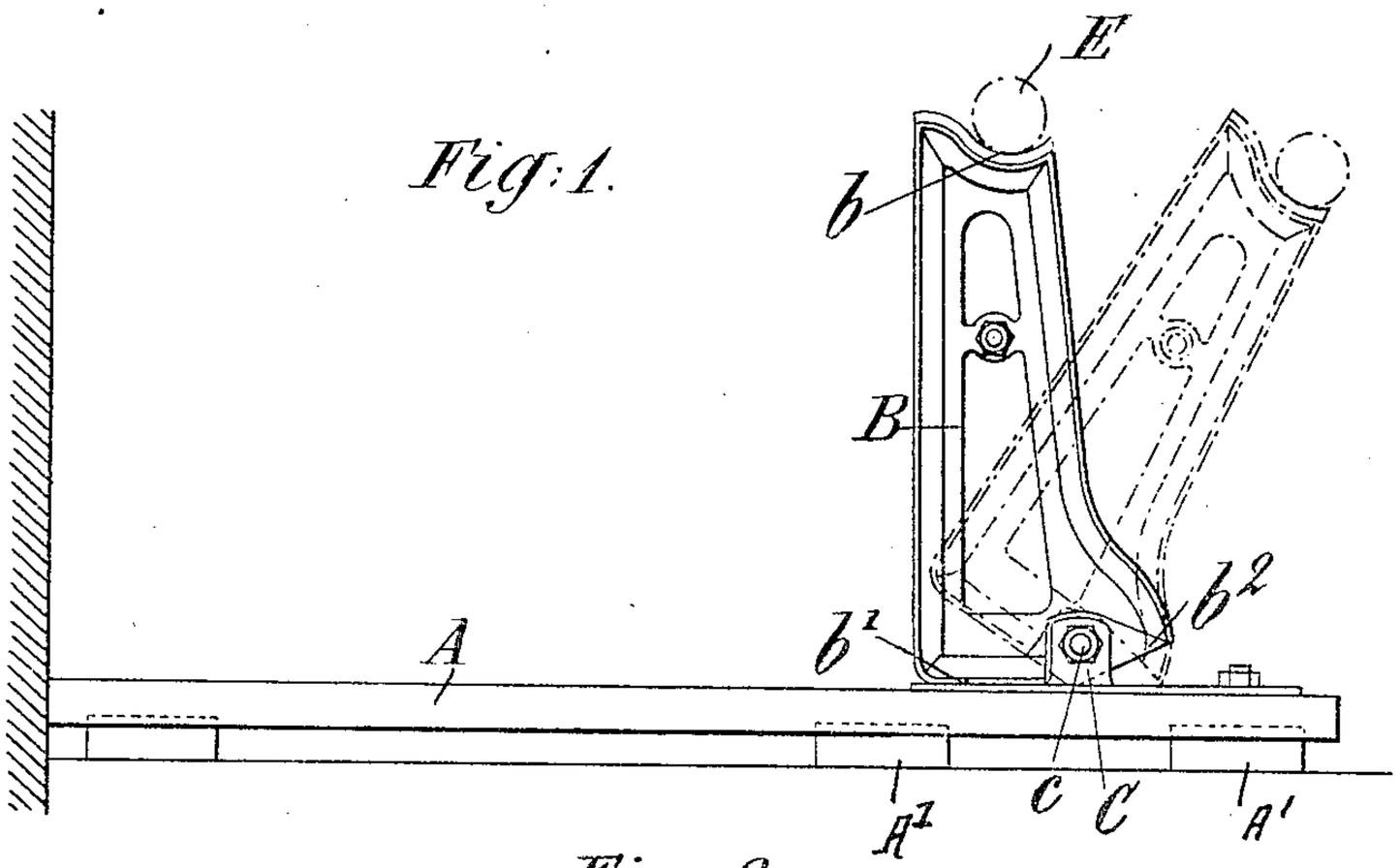
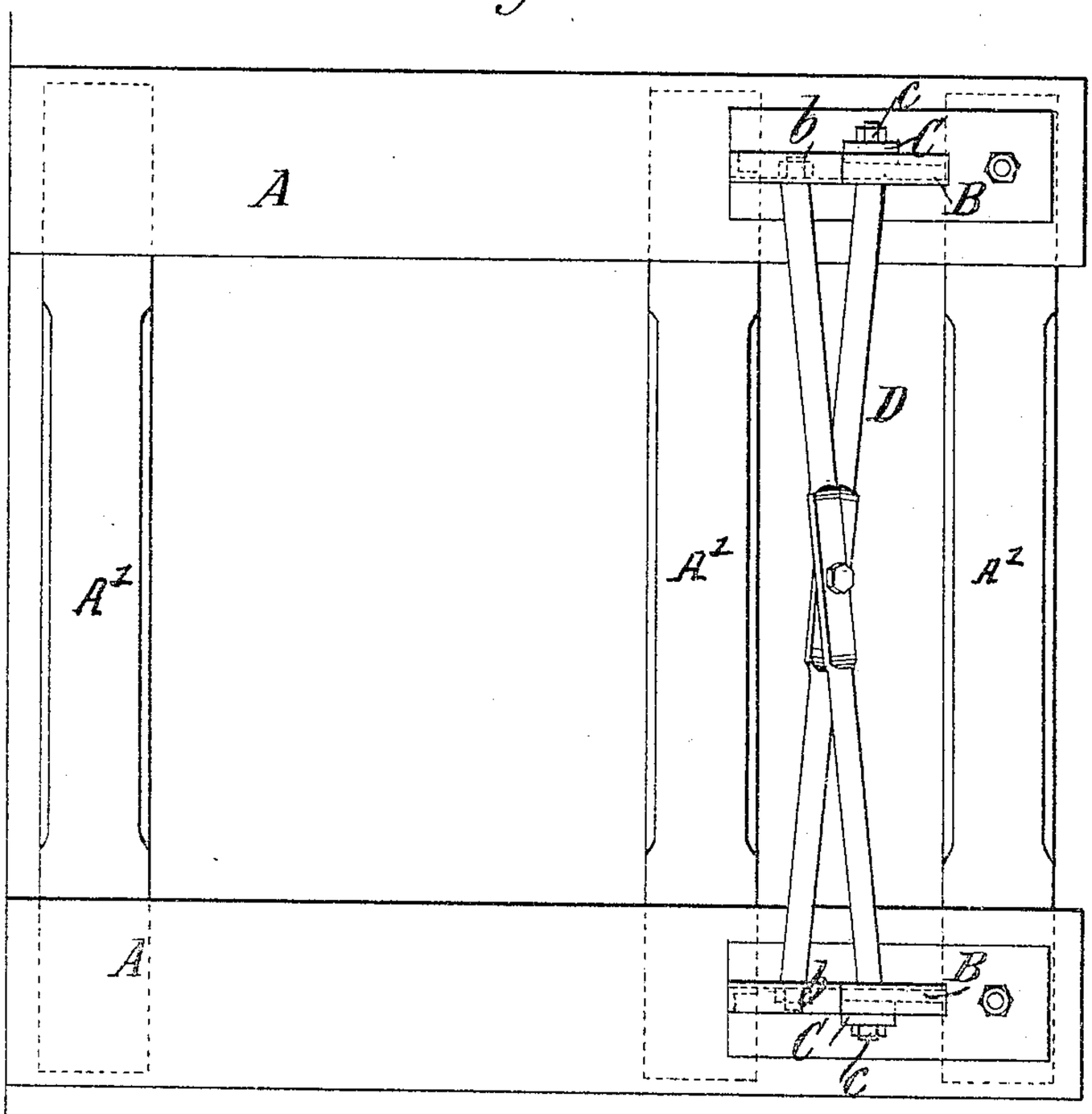


Fig. 3.



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3 SHEETS—SHEET 2.

Fig: 2.

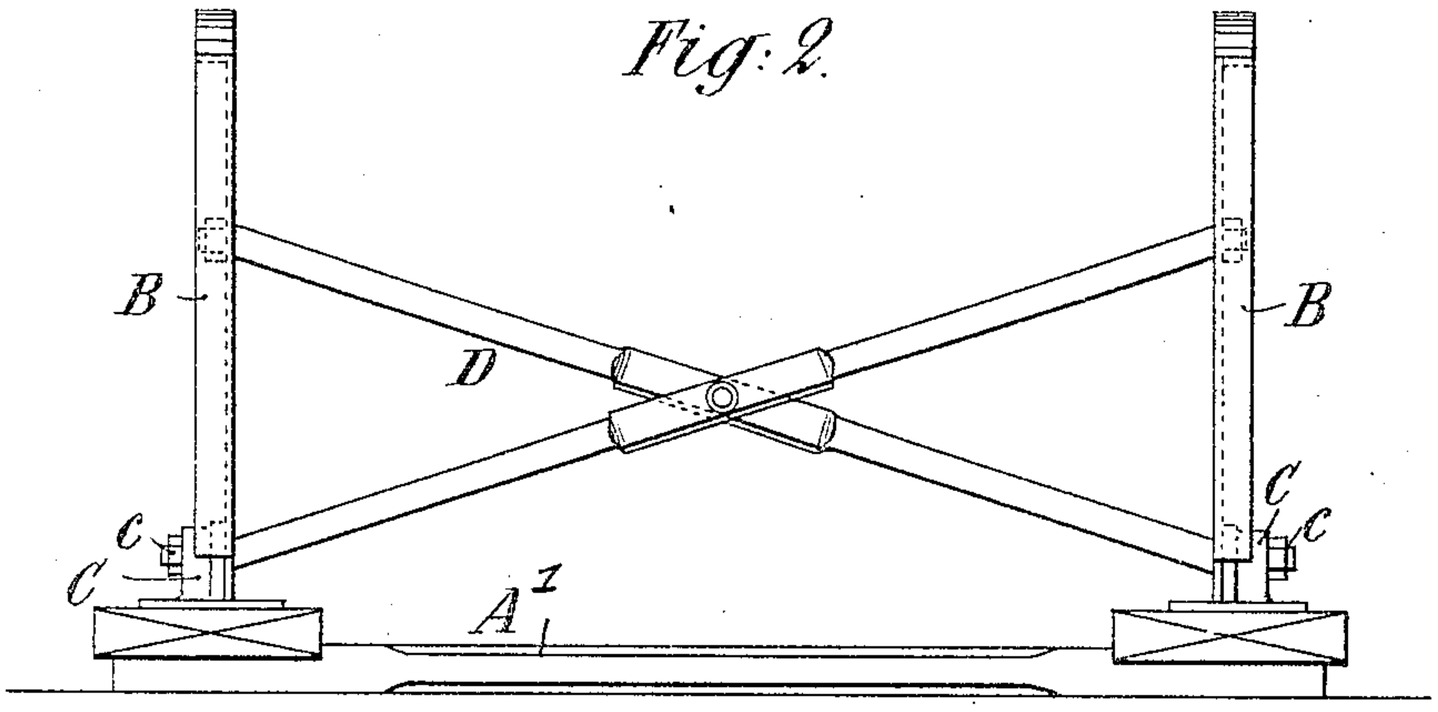


Fig: 4.

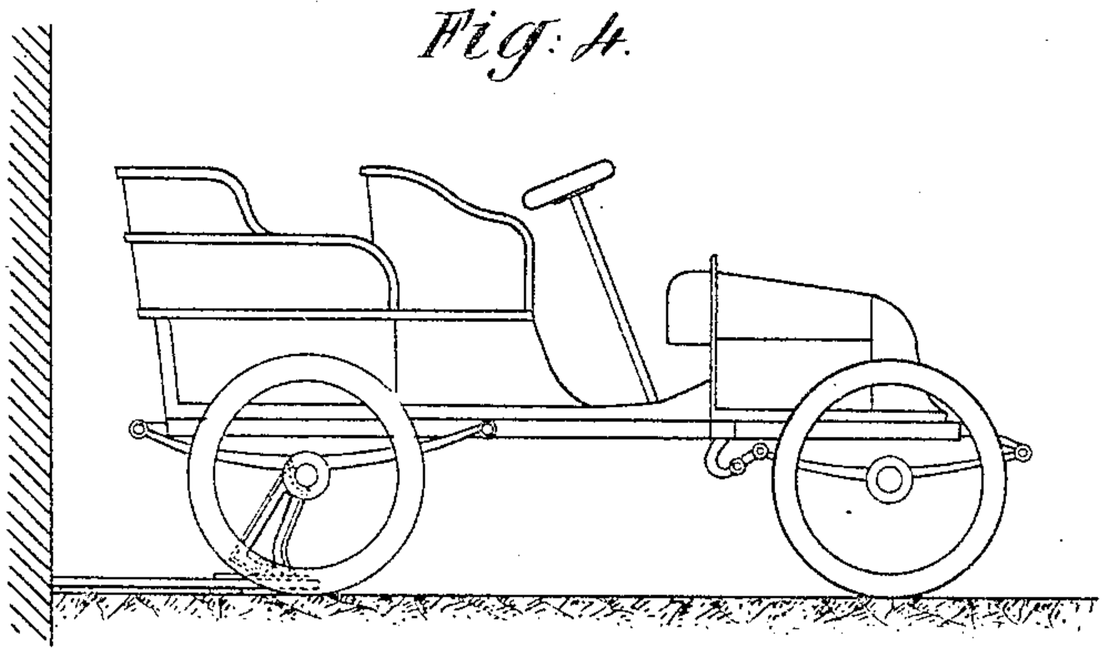
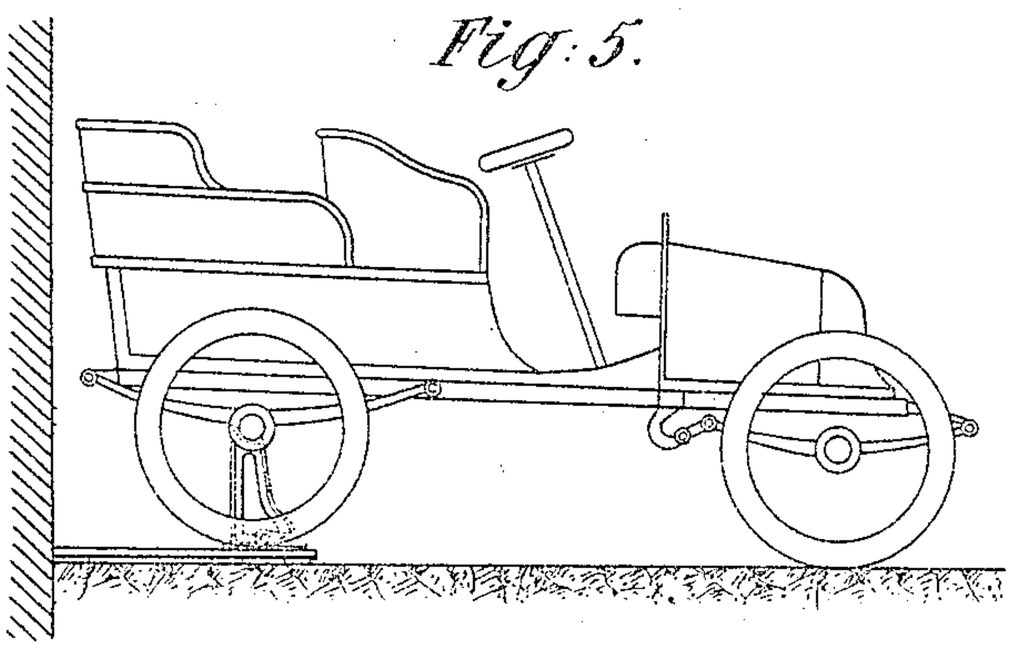


Fig: 5.



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3 SHEETS—SHEET 3.

Fig: 6.

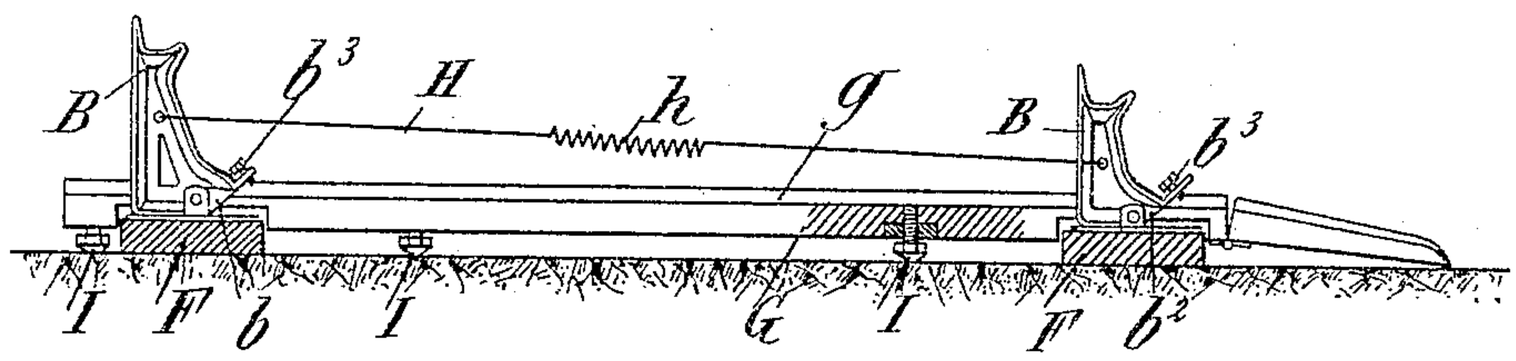
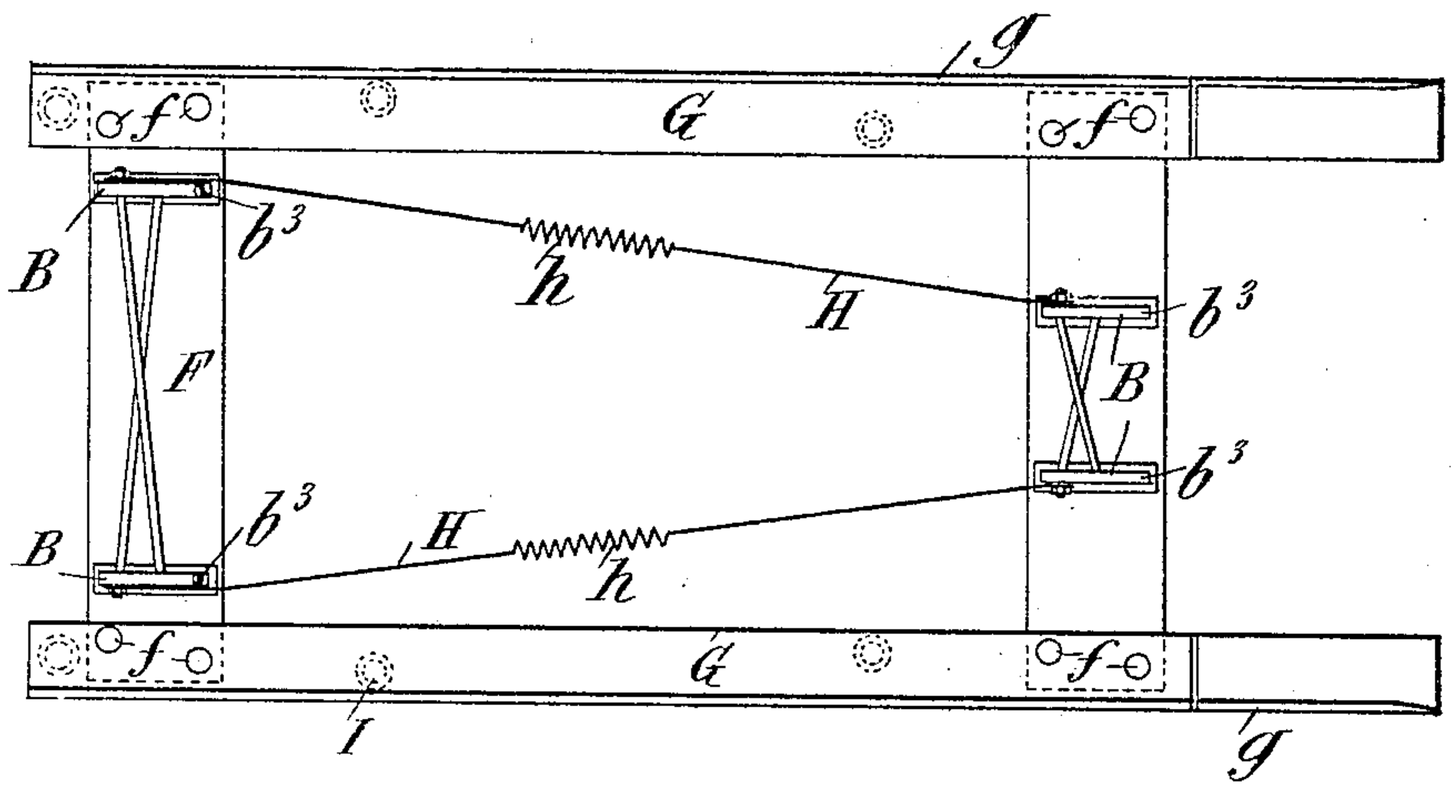


Fig: 7.



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No. 778,645. Patented December 27, 1904.

UNITED STATES PATENT OFFICE.

HENRI EDELINE, OF PARIS, FRANCE.

AUTOMATIC CARRIAGE-JACK.

SPECIFICATION forming part of Letters Patent No. 778,645, dated December 27, 1904.

Application filed March 2, 1904. Serial No. 196,191.

To all whom it may concern:

Be it known that I, HENRI EDELINE, engineer, a citizen of the Republic of France, and a resident of 108 Rue de la Reunion, Paris, in the Republic of France, have invented certain new and useful Improvements in Automatic Carriage-Jacks, of which the following is a specification.

In the accompanying drawings, Figure 1 is a side elevation of the apparatus. Fig. 2 is a front elevation, and Fig. 3 is a plan view, of the same. Figs. 4 and 5 show, on a smaller scale, in side view and in two positions the manner of applying the invention, say, to a motor-car and to one axle only. Fig. 6 shows in side elevation two pairs of jacks united on the same base, the object of which is to raise the vehicle by both axles at the same time in the case where these are of different heights; and Fig. 7 is a plan view.

The object of this invention is to provide a carriage-jack which will allow for the automatic raising of the vehicle by simply backing the vehicle onto the apparatus and may be applied to one or both axles, as may be desired.

In carrying out the invention a horizontal and substantially stationary timber frame consisting of side bars A and cross-pieces A′, constituting a base, is provided to lie on the floor of the coach-house or garage. To the bars A vertical metal frames B are pivoted at a point in front of the vertical center line, lugs C to receive the pivots being firmly secured to the bars A. These frames B are connected together by spacing-pieces D or in any other convenient manner. The frames B are pivoted to the lugs C by means of trunnions *c* near one corner, and each is provided with a stop b^2, which limits the tipping forward of the frames B, as indicated by dotted lines, Fig. 1. The top edge of each frame B is shaped or hollowed out at *b* to receive when tipped forward an axle E (see Fig. 1) of the vehicle and retain the same in position while the vehicle is being backed. The backing of the vehicle will tip the frames B back into a vertical position, when they will rest on the parts *b*′, and so raise the axle E, lifting the wheels of the vehicle off the ground.

It may be here remarked that this apparatus may be employed not only for ordinary usage as a carriage-jack, which it will replace with advantage, but also as an appliance for supporting a vehicle when at rest, especially in the case of vehicles provided with pneumatic tires, as it will be profitable to the preservation of these latter in many ways.

When the vehicle has been raised automatically by one of its axles, the other axle may be raised by any other convenient means, or both may be raised at one time by combining two of these appliances, as will be now described.

In the arrangement for raising the vehicle by both axles at one time (shown in Figs. 6 and 7) the frames B are mounted on cross-pieces F, secured to the side bars of wood G. Flanges *g* on the edge of these bars guide the vehicle into position and center it on the frames B. The pair of frames B in front is connected to the pair of frames behind by coupling-rods H, provided with springs *h* in their length, which rods serve to cause the simultaneous movement of the frames B, at the same time assuring to the arrangement a certain amount of elasticity. At a point on the cross-pieces F where each stop b^2 will strike is placed a regulating-screw b^3, which permits of varying the position of the frame B according to the differences which may exist between the axles of vehicles of any one system. It will be the same for the height of axles, which may vary according to the state of expansion of the pneumatic tires. To this effect the cross-pieces F are provided with bolts *f*, which engage freely in corresponding holes made in the side bars A. These bars are provided with a suitable number of screws I, the heads of which, made pointed, rest on the ground. Each of the screws engages with nuts or sockets sunk in the under side of the side bars A, so as to permit of regulating exactly the height of the axles and of following, if necessary, the unevenness of the ground.

In the case of carriages having two axles

at different heights from the ground two of the above-described appliances of different heights may be attached to the same base, so that when the vehicle is backed the higher axle will pass over the first or lower jack on its way to its own proper jack, the second and lower axle coming into contact with the lower jack at the right moment. It will be obvious that the effect may also be produced by a forward movement of the vehicle, the apparatus being reversed to effect the automatic raising of the axle.

The invention is not to be confined strictly to the constructive arrangements shown, but may include many variations, so long as the essential character of the invention is not modified.

I claim as my invention—

1. A carriage-jack, comprising a horizontal and substantially stationary base, a tipping frame permanently pivoted to said base, means to hold said frame in a forward position when out of use, the upper part of said frame being so adapted to hold an axle that when a carriage is backed upon the forwardly-tilted frame to move it on its pivot, the weight of the carriage will hold the tipping frames in a vertical position.

2. A carriage-jack, comprising a horizontal and substantially stationary base, a tipping frame permanently pivoted to said base at a point forward of the center line of said frame, said frame having its upper edge at substantially its center adapted to hold an axle.

3. A carriage-jack, comprising a tipping frame of a height for a rear axle, a tipping frame of lesser height for the front axle, means for holding said frames in forwardly-tilted positions, said frames being adapted when moved into a vertical position by the action of the axle of a carriage against them to remain in said vertical position under the weight of the carriage.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRI EDELINE.

Witnesses:
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HANSON C. COXE.