No. 804,791. PATENTED NOV. 14, 1905.

D. BOLDOG.

MEANS FOR FREEING HORSES FROM VEHICLES.

APPLICATION FILED APR. 26, 1905.

Fig. 1.

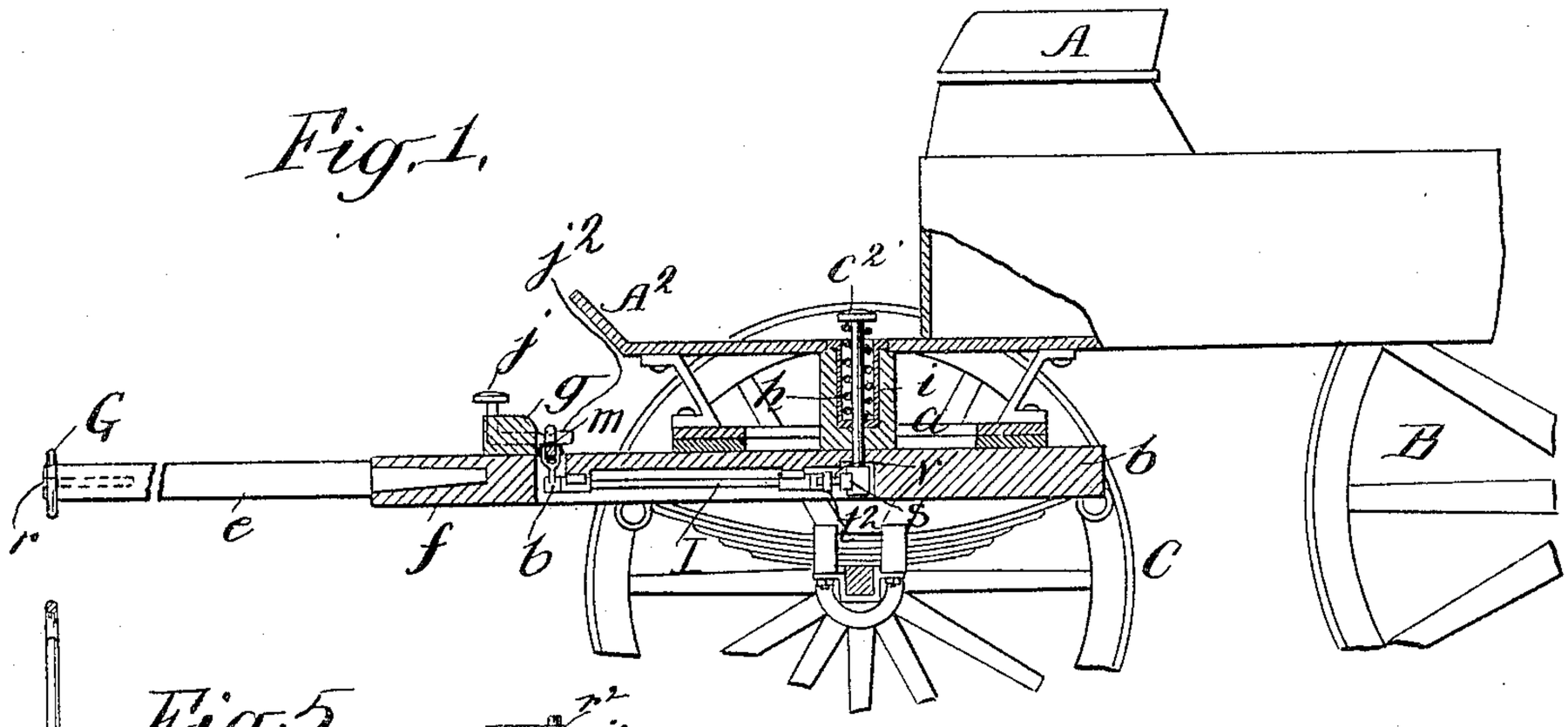


Fig. 5.

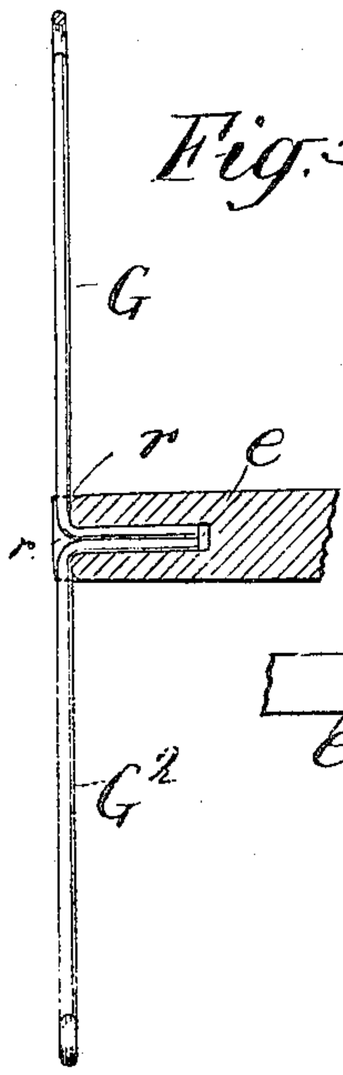


Fig. 2.

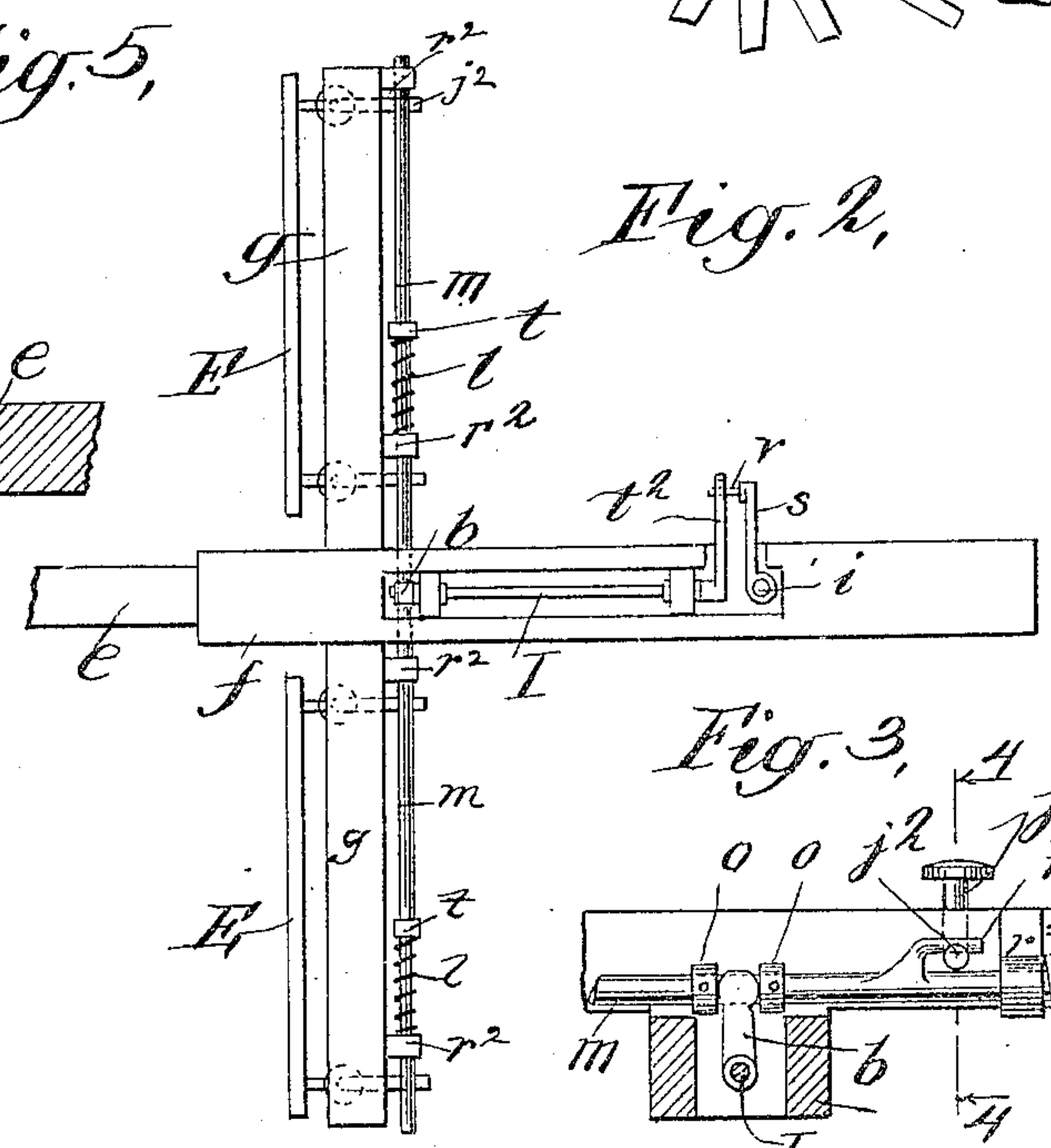


Fig. 3.

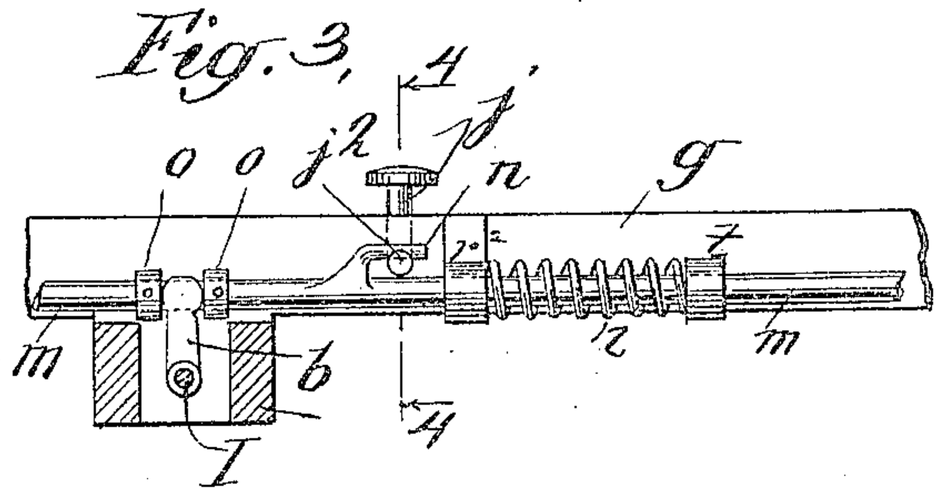
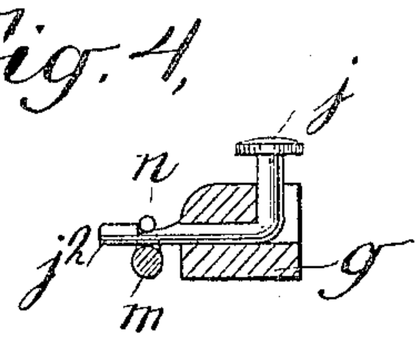


Fig. 4.



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MEANS FOR FREEING HORSES FROM VEHICLES.

No. 804,791. Specification of Letters Patent. Patented Nov. 14, 1905.

Application filed April 26, 1905. Serial No. 257,405.

To all whom it may concern:

Be it known that I, DANIEL BOLDOG, residing at New York city, in the county and State of New York, have invented a new and useful Improvement in Means to Free Horses from Vehicles when Running Away, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My invention relates to means for effectuating a quick and complete freeing from the vehicle which may be drawn by them of a team of horses which may start to run away in order that all injury or danger thereof to the occupants of a carriage may be certainly avoided in the event of the horses taking fright and getting beyond control by the person driving them. Previous to my invention means have been suggested and devised for this purpose; but nothing heretofore suggested that I know of has been found to possess practical merit such as has led to its use to any material extent notwithstanding the generally-recognized great benefit which must arise from the use of such a contrivance.

I propose to provide for general use such appliances to a carriage or to combine with the vehicle such a mechanism or such devices to be under the control of the driver or other occupant of the vehicle as will enable the person in the carriage to instantaneously and effectually accomplish the detachment from the carriage of the harness of and the team hitched thereto, while at the same time such mechanism shall be comparatively simple and economic of construction, perfectly durable, and not liable to any derangement of any of its parts that can possibly interfere with certainty of perfect operation in the emergency which may render necessary its use.

To these ends and objects my invention consists in the novel means or the novel combinations with the carriage of certain operative devices or working parts which I will now proceed to describe and that will be found most particularly pointed out in the claims of this specification.

To enable those skilled in the art to make and use my invention, I will now proceed to more fully describe it, referring by letters to the accompanying drawings, which form part of this specification and in which I have shown my improved means carried into effect in the precise form of mechanism under which I have so far successfully practiced my invention, though modifications may be made in the details of the shown mechanism without departing from my said invention.

In the drawings, Figure 1 is a central longitudinal vertical section of the forward portion of a four-wheeled carriage comprising my invention, in which for the sake of economizing space the greater portion of the pole is broken out and the forward end thereof moved toward the point of attachment of the pole to the carriage. Fig. 2 is a partial bottom view of the same. Fig. 3 is a partial detail rear view of the forward cross-bar of the carriage, drawn on a somewhat-enlarged scale, to show particularly one of the several (duplicate) detachable fastening devices. Fig. 4 is a detail vertical cross-section at a plane indicated by the dotted line 4 4 at Fig. 3. Fig. 5 is a detail view of detachable yoke for pole-straps.

In the several figures the same part will be found always designated by the same letter of reference.

A is the front seat, A^2 the dashboard-floor, (or foot-rest of said seat,) B the hind and C the front wheels, of the carriage, the front part of which is mounted, through the medium of the "fifth-wheel" *a*, on the supporting portion *b* of the running-gear, all in any of the well-known ways, while C^2 is a foot presser-button at the upper end of a vertically-movable rod or spindle *i*, which is located within the axis of the fifth-wheel pivotal connection of the carriage-body with the running-gear and which is provided, as shown, with a surrounding spiral compression-spring *h*, which operates to maintain this movable rod *i* in its highermost normal position.

g is the front bar, to which are attached in a detachable manner, by means of devices to be presently described, the swingletrees E, to which are hitched in the usual manner the traces of the harness, and *e* is the carriage-pole that is, as usual, detachably connected with the forward end portion *f* of the running-gear frame of the vehicle.

At the forward end of the pole *e* is located the metallic yoke or duplex loop to which the pole-straps of the harnesses are fastened in the ordinary way in hitching up the team; but this device in lieu of being permanently

connected with the pole is made in two separate parts G G², each composed, as shown, of an eye portion to hitch one of the pole-straps to and a leg-like part that is removably fitted within a central longitudinal hole in the end of the pole in such manner that it can be easily pulled out to completely extricate the device from the pole, while at the same time it is capable of perfectly performing its usual function when the harnessed-up team has to hold back (or pull back) on the pole going downhill or in stopping the locomotion of or draft in the carriage. The extreme forward end of the pole which, as I have said, has a central hole or bore for the accommodation of the leg-like portions of the two metal devices G G², has a diametrically-arranged recess or groove at *r*, into which fit, as shown, (see Fig. 5,) portions of the yoke and which operate to retain in perfect position during use the said metal pieces or prevent any axial movement with the bore of the pole of the leg-like portions which are located within said bore. This combined arrangement of the parts G G² with the centrally-bored pole end is necessary in order that when in their operative or normal relative arrangements the pole and the loops or eyes to which are hitched the pole-straps may be and operate just the same as the usual construction, in which the metallic and wooden parts are permanently or inseparably combined, while at the same time (in the event of a runaway of the team) when the rest of the harness shall have been wholly detached from the carriage (in a manner to be presently described) the team in leaving the carriage with all the harness on will pull out and carry off the devices G G², to which the pole-straps are securely hitched, and also so that in leaving the vehicle each horse will carry off one of the two devices (or one-half of the duplex or two-part) G G², thus being wholly disconnected by any harness or trappings from the other horse, and this I consider of importance, for were the horses after having the rest of the harness detached from the carriage coupled together by the pole-straps hitched to some device they not being free to pursue separate courses would be more liable to injury to themselves and people and be less easy of stoppage than when free to travel (or run) in different courses of travel.

The swingletrees E, to which the traces are hitched in the usual manner, are each coupled to the carriage cross-bar *g* by means of two detachable couplers *j* and may at the pleasure of the driver be instantly detached therefrom by the means and in the manner which I will now explain.

Immediately in rear of the cross-bar *g* and arranged parallel therewith is a sliding rod *m*, that is mounted in suitable bearing-eyes r^2, which project rearwardly from said bar and that is kept or held in its normal position endwise by spiral compression-springs *l*, mounted thereon and acting between opposing sets of the rod-bearing eyes r^2 and collars *t*, fast on the rod, (all as clearly shown in the drawings,) and this slide-rod *m* is formed or provided with four tongue-like devices *n*, which when the rod *m* is in its normal position engage with and maintain in their normal positions the four detachable devices *j*, to which the swingletrees E are secured. Each of these couplers *j* is formed, as shown, (see Figs. 1, 3, 4,) with a horizontal leg-like portion j^2, which passes through and loosely fits within a hole running crosswise through the bar *g* and has a latch-like inner end which engages positively with one of the tongue-pieces or latching-forks *n* of the slide-bar *m*, all in such manner that by an endwise movement of rod *m* in the direction indicated by the half arrow at Fig. 3 and to the proper extent the locking-tongue *n* will be thrown out of engagement with the latch-like part j^2 of the swingletree attachment, and the latter and the tree E, with the attached trees, will be carried off by the horse harnessed thereto. At the middle of the slide-rod *m* are two fast collars *o o*, intermediately of which there is forked around said shaft the upper bifurcated end of an arm *b*, the lower hubbed end of which is fast on a horizontally-arranged rock-shaft I, that extends rearwardly, as shown, being supported in suitable bearing-boxes on the running-gear of the carriage and which is provided at its rear end with a radially-projecting rigid arm t^2. The vibratory or free end of this arm t^2 of rock-shaft I is bifurcated and engages with the pin or stud *v* of a laterally-projecting arm *s* of the vertically-movable rod *i*, hereinbefore referred to, all in such manner that whenever the said rod *i* shall be forced downwardly sufficiently the rock-shaft will be rocked sufficiently to properly vibrate the arm *b* on the forward end thereof to move the slide-rod *m* endwise against the holder-springs *l* and effect the releasement from tongues *n* of the four latch-like ends j^2 of the four couplers *j*.

It will now be understood that in the event of the team becoming unmanageable the driver has simply to put his foot on the push-button C² of the latter and push same down, whereupon by means of the mechanism shown and described and its explained operation the horses, with their harness, will be completely and separately freed from the carriage.

Of course in the mechanism shown and described various modifications in the details of construction may be made without changing its principle of construction and mode of operation.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a carriage mechanism for the ready and complete detachment therefrom of the team harnessed thereto, the combination of the following instrumentalities, all arranged and operating together in the manner set forth; first, the slide-bar *m*, mounted on the forward cross-beam *g* and formed with the engaging or locking devices *n;* second, expansion-springs mounted on said slide-bar and operating to hold the same in its normal position, relatively to cross-bar *g;* third, devices on the swingletrees which engage with the locking devices of said slide-bar; and fourth, mechanism under the control of a person in the carriage, and adapted to actuate, at pleasure, the said slide-bar; as specified.

2. In a carriage mechanism for effectuating the releasement from the carriage of the team harnessed thereto, the combination, with the swingletrees, provided with latching devices that are arranged with the cross-bar *g* as specified; and the slide-bar *m* having locking devices that engage the said latching devices, as specified, of a rock-shaft I, having its forward end coupled to the said slide-bar by means of a bifurcated arm *b;* and a vertically-sliding rod arranged within the carriage-body, having its lower end coupled to the rear end of said rock-shaft, and its upper end provided with a head adapted to be pressed down by the foot of an occupant of the front carriage-seat; all in the manner and for the purposes set forth.

In witness whereof I have hereunto set my hand this 20th day of April, 1905.

DANIEL BOLDOG.

In presence of—
J. N. McIntire,
E. H. Carpenter,