(No Model.)

3 Sheets—Sheet 1.

H. R. PHILIPPS.

SAFETY SADDLE BAR.

No. 345,540. Patented July 13, 1886.

Fig: 1.

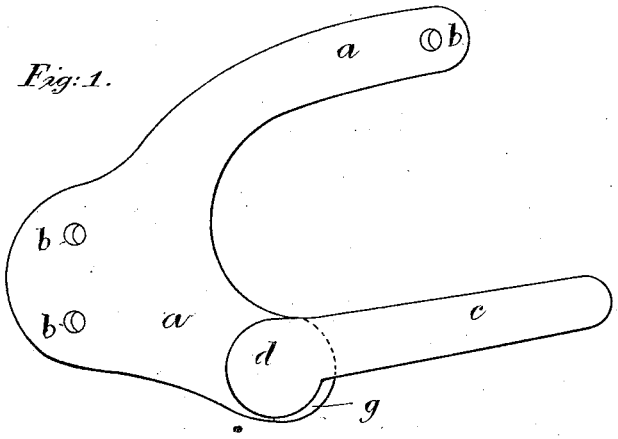


Fig: 2.

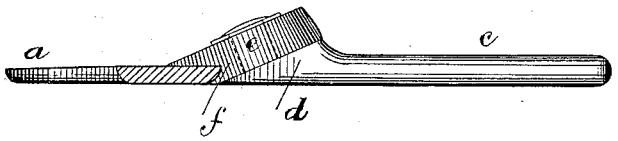
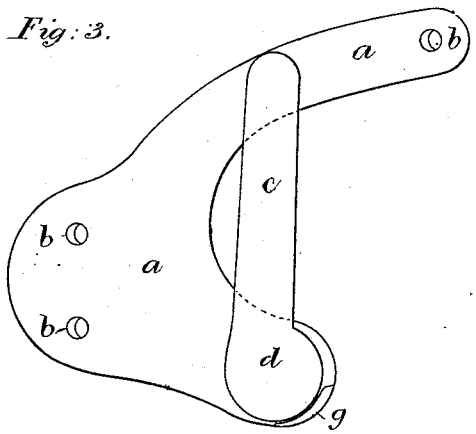


Fig: 3.



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Inventor:
Henry Reed Philipps

(No Model.) 3 Sheets—Sheet 2.

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Fig: 4.

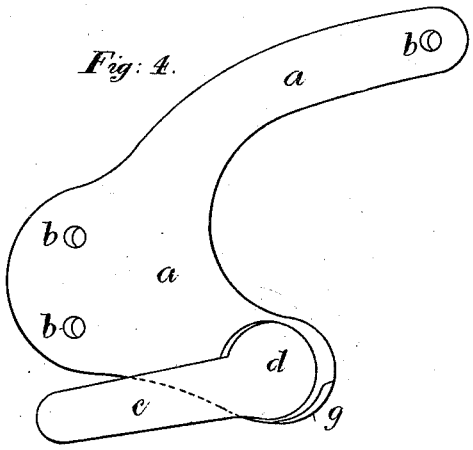


Fig: 5.

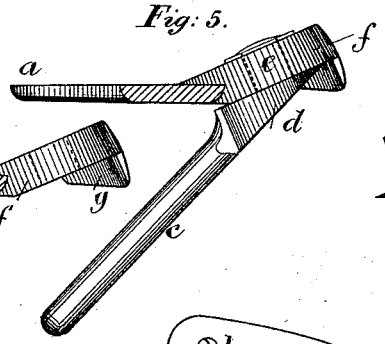


Fig: 6.

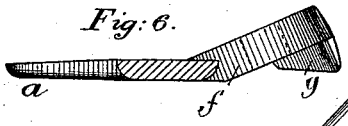


Fig: 7.

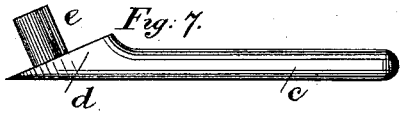
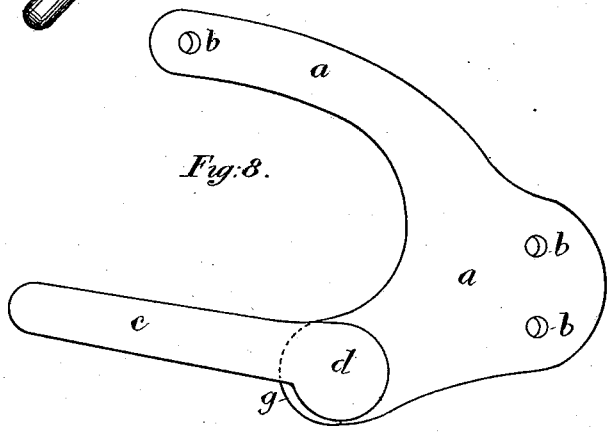


Fig: 8.



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(No Model.) 3 Sheets—Sheet 3.

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Fig. 9.

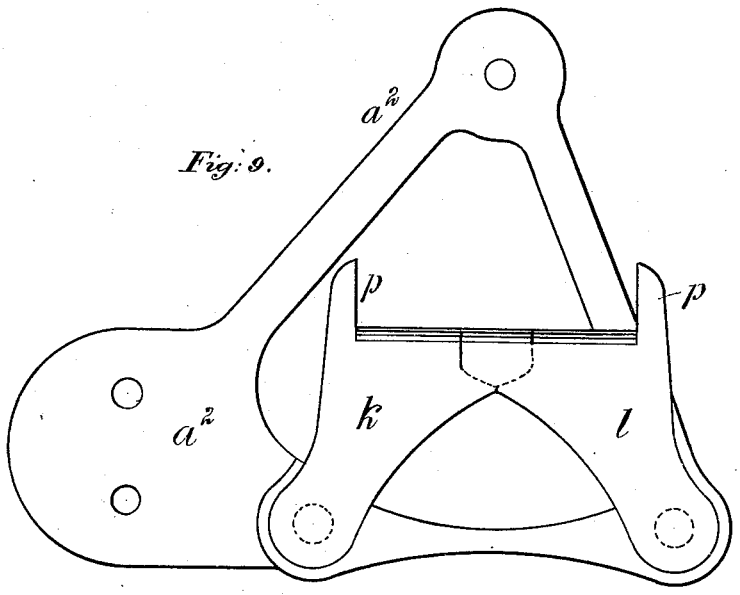


Fig. 10.

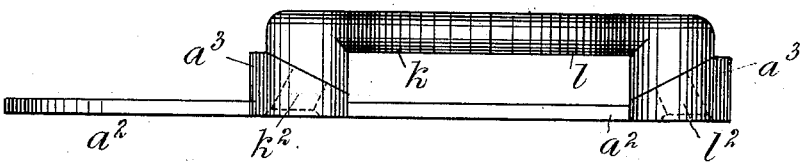
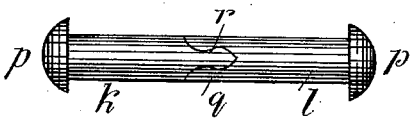


Fig. 11.



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UNITED STATES PATENT OFFICE.

HENRY REES-PHILIPPS, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND.

SAFETY SADDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 345,540, dated July 13, 1886.

Application filed March 29, 1886. Serial No. 197,016. (No model.) Patented in England June 30, 1883, No. 3,250.

To all whom it may concern:

Be it known that I, HENRY REES-PHILIPPS, a subject of the Queen of Great Britain, residing at Birmingham, in the county of Warwick, England, accountant clerk, have invented certain new and useful Improvements in Safety Saddle-Bars, (for which I have received Letters Patent in Great Britain, No. 3,250, dated June 30, 1883,) of which the following is a specification.

My invention consists in the arrangements or combinations of the parts of safety saddle-bars hereinafter described, whereby safety saddle-bars are produced simple in construction and efficient in action.

In constructing a single saddle-bar according to my invention I proceed as follows: To the foundation-plate, which is attached by riveting to the saddle, I connect the saddle-bar by means of a pin fixed near the bottom of the said foundation-plate, the lower end of an arm on the under side of the front end of the saddle-bar taking upon the said pin and turning upon the said pin as a center. The pin on which the saddle-bar turns is not at right angles to the foundation-plate, but is so inclined thereto that when the saddle-bar is raised the distance between it and the said plate is increased. The object of this arrangement will be hereinafter explained. The upper edge of the saddle-bar, when the said bar is in its normal position, is nearly, but not quite, horizontal, the said edge inclining upward from the joint end of the bar. The extreme free end of the saddle-bar may also be inclined upward with respect to the upper edge of the bar. The saddle-bar can turn on the pin in the foundation-plate through a semicircle in a forward direction—that is, toward the head of the horse; but its motion in the opposite direction is so limited by stops on the foundation-plate and bar, respectively, that it cannot pass in that direction beyond its normal position—that is, the position in which the upper edge of the bar is nearly horizontal.

The action of the parts is as follows: The stirrup-strap is looped to the saddle-bar in the ordinary way. Should the rider be thrown backward, the loop of the stirrup-strap being pulled at a considerable angle with the top edge of the safety-bar, the said loop slides backward from off the safety-bar, and the thrown rider is immediately liberated from the saddle. Should the rider be thrown forward, the safety-bar is pulled by the stirrup-strap in that direction by the pressure of the strap upon the under side and arm of the bar, and, turning upon its pin or center, performs a semi-rotation, and the strap slips from off the said bar. In consequence of the inclination to the foundation-plate of the pin on which the bar turns the space between these parts increases as the arm turns, as already explained, and the wedging of the stirrup-strap between the bar and foundation-plate is prevented. Should the rider be thrown across the horse, the rising motion of the stirrup-strap in that case lifts the safety-bar, from off which the said strap immediately slips. Thus in whatever direction the rider is thrown the stirrup-strap is immediately detached from the safety-bar without risk of failure by the wedging of the strap between the parts of the apparatus.

Two safety-bars constructed and mounted in the way described may be employed in place of the one safety-bar described. In this form of my invention the two bars are shortened and are so mounted that they turn on their centers in opposite directions, the free ends of the bars being presented to each other when they are in their normal positions, the stirrup-strap bearing on both bars. If the rider is thrown forward, the front bar turns upon its pin or center and the strap slips off the bars. If the rider is thrown backward, the back bar turns upon its center and the stirrup-strap slips off the bars. If the rider is thrown across, both bars turn on their pins or centers and the stirrup-strap slips off them.

I have only referred to the use of my invention on one side of a saddle; but I wish it to be understood that safety saddle-bars made according to my invention are applied to both sides of the saddle, the arrangement of the parts on the different sides of the saddle differing only in the respect in which right and left handed articles or articles used in pairs differ.

I will now proceed to describe with reference to the accompanying drawings the manner in which my invention is to be performed.

Figure 1 represents in front elevation, and Fig. 2 in edge view, a safety saddle-bar for the near side of the saddle constructed according

to my invention, the said saddle-bar being represented in its normal position. Fig. 3 represents in front elevation the saddle-bar partly turned in a forward direction upon its pin or center. Fig. 4 represents in front elevation, and Fig. 5 in edge view, the safety saddle-bar turned through about a semicircle from its normal position to its full forward position. Fig. 6 represents an edge view of the safety saddle-bar plate separably, and Fig. 7 represents an edge view of the safety-bar separately. Fig. 8 represents in front elevation a safety-bar constructed according to my invention to be applied to the off side of the saddle. Fig. 9 represents in front elevation, and Fig. 10 in edge view, a double or compound safety saddle-bar constructed according to my invention; and Fig. 11 represents a plan of the upper side of the two safety-bars.

The same letters of reference indicate the same parts in the several figures of the drawings.

I will first describe the single safety-bar for the near side of the saddle.

a is the foundation or bar plate, attached to the saddle by riveting at the holes *b b*. *c d* is the safety saddle-bar, connected to the bottom of the foundation or bar plate *a* by the pin *e*, upon which the said safety-bar turns as a center. The pin *e*, on which the safety-bar turns, has the inclination with respect to the bar-plate *a* and to the part *d* of the safety saddle-bar represented in the drawings. On the bar-plate *a* is a boss or projection, *f*, the outer face of which is inclined, and constitutes an inclined seat or bearing, against which the inclined inner face of the part *d* of the saddle-bar *c d* seats itself or takes a bearing. The inclined pin or center *e* on the part *d* of the saddle-bar *c d* is passed through a hole in the boss or seat *f* on the bar-plate *a*, and the inner end of the said pin riveted on a washer let into the said boss. By jointing the safety saddle-bar *c d* to the bar-plate *a* in the manner represented it will be seen that when the saddle-bar is in the position Figs. 1 and 2, it is nearly horizontal and parallel with the bar-plate *a*, but when the said saddle-bar has been turned through a semicircle into the position Figs. 4 and 5 the said safety-bar is inclined to the bar-plate, and the space between the said bar and bar-plate is considerably increased in consequence of the inclined face of the boss or bearings *f*. On the bearing or seat *f* of the bar-plate *a* is a stop, *g*. When the saddle-bar is in its backward or normal position, Figs. 1 and 2, it comes against the stop *g* on the bar-plate *a*, and the further motion of the said saddle-bar in that direction is arrested. When the saddle-bar is turned in a forward direction through about a semicircle into the position represented in Figs. 4 and 5, the saddle-bar bears against the opposite end of the stop *g*, and its further motion in that direction is arrested. The upper edge of the part *c* of the saddle-bar, when the said bar is in its normal position, is nearly but not quite horizontal, the said edge inclining upward from the joint end *d*. (See Fig. 1.) On the part *c* of the saddle-bar the stirrup-strap is supported, the said strap being looped thereto in the ordinary way. Should the rider be thrown backward, the movable part of the saddle-bar is maintained in the position represented in Figs. 1 and 2, and the loop of the strap being pulled at a considerable angle with the top edge of the part *c* of the safety-bar, the said loop slides backward from off the safety-bar, and the thrown rider is immediately liberated from the saddle. Should the rider be thrown forward, the safety-bar is pulled in that direction by the pressure of the stirrup-strap upon the under side of the part *c* of the safety-bar. The safety-bar is thereby made to take the position represented in Figs. 4 and 5, and the stirrup-strap slips off the said bar, the space between the said bar and the bar-plate *a* increasing as the bar turns on the pin *e*. The wedging of the strap between the parts *a* and *e* is thereby effectually prevented. (See Fig. 5.) Should the rider be thrown across the horse, the tension of the stirrup-strap in that case lifts the safety-bar into the position represented in Fig. 3, when the strap is immediately detached from the safety-bar. When the safety-bar is raised into the position represented in Fig. 3, the distance between it and the cranked part of the bar-plate *a* is increased, and there is consequently no risk of the wedging of the strap between the said bar and bar-plate.

The action which I have described with respect to the near-side safety-bar, Figs. 1, 2, 3, 4, and 5, takes place with respect to the off-side safety-bar, Fig. 8, and the parts of the off-side safety-bar are marked with the same letters of reference as corresponding parts of the near-side bar.

I will now describe the double safety-bar represented in Figs. 9, 10, and 11.

a^2 a^2 is the foundation or bar plate, and *k l* are the two safety-bars, turning in opposite directions upon the bar-plate a^2. The safety-bars *k l* of the double bar are shorter than the single bar hereinbefore described; but the jointing or centering of the said bars to the bar-plate is effected in the manner before described with respect to a single bar, for the purpose of increasing the space between them and the bar-plate when the bars are turned in opposite directions from their normal positions. The inclined joint-pins of the two safety-bars *k l* are marked, respectively, k^2 and l^2, and the inclined-faced bosses on the bar-plate a^2, against which bosses the inclined faces of the lower parts of the safety-bars bear, are marked a^3 and a^3. The stirrup-strap is supported on the flat tops of the two safety-bars *k l* when they are in the normal positions, Figs. 9 and 10, the said strap being confined between the shoulders *p p* of the said bars, and lying between the two safety-bars and the bar-plate. The meeting edge of the bar *l* is forked at *q*, (see Fig. 11,) so as to make that edge slightly elastic; and the meeting edge of the other bar

is provided with a tongue, *r*, of a shape and size suitable to engage between the branches of the elastic fork *q*, when the two safety-bars are brought together. The two safety-bars *k l*, when in their normal positions, are thus held firmly together. I do not, however, limit myself to this arrangement of spring-catch fastening for holding the two bars together. The lower edges of the two safety-bars have the inclined figures represented in Fig. 9. When the double safety-bar represented in Figs. 9, 10, and 11 is used, if the rider is thrown forward the front bar, *k*, turns upon its pin or center k^2, and the stirrup-strap slides off the bars *k l*, the wedging of the strap between the turned bar and the bar-plate being prevented by the jointing arrangement before described. If the rider is thrown backward, the rear bar, *l*, turns upon its center l^2, and the strap slips off the bars, no wedging of the strap taking place. If the rider is thrown across the horse, the upward pressure of the stirrup-strap on the curved or inclined under sides of the safety-bars turns both bars on their pins or centers, and the stirrup-strap slips off them.

Safety saddle-bars made according to my invention can be made as light as the ordinary spring-bars in general use, and are equally strong. They are consequently applicable to polo and steeplechase saddles, to women's saddles, and to saddles generally. They can be fitted to trees of saddles in use without damaging or weakening them. They have no loose or detachable parts, no springs, staples, hooks, or weak parts liable to get out of order or wear away. They are very neat in appearance, and do not form a lump under the saddle-skirt or interfere with the leg of the rider. They are not displaced in altering the length of the stirrup-straps, and the position and height of my safety-bars are the same as those of the ordinary bar.

Having now described the nature of my invention and the manner in which the same is to be performed, I wish it to be understood that I claim—

1. In a single and double safety saddle-bar, the combination, with the fixed saddle-bar plate, of the movable saddle bar or bars supporting the stirrup-strap and connected to the fixed bar-plate by a joint-pin inclined to the lower end of the said saddle-bar and bar-plate, the joint of said bar and bar-plate being formed with inclined faces, for the purpose and substantially as described and shown.

2. In a single and double safety saddle-bar, the combination of the inclined seat or bearing on the fixed bar-plate with the inclined joint part of the movable saddle-bar carrying the inclined joint-pin, for the purpose and substantially as described and shown.

3. In a single safety saddle-bar, the combination of the fixed bar-plate and an inclined joint-pin with a jointed or movable saddle-bar having its joint arranged on the said bar-plate in an inclined position, substantially as described and shown.

4. In a double safety saddle-bar, the combination of the two pivoted saddle-bars with the fixed bar-plate, said bars and bar-plate being connected by inclined joint-pins and joints having inclined faces, as described and shown.

HENRY REES-PHILIPPS. [L. S.]

Witnesses:

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