F. R. CALKINS & R. O. HAMMOND.

TRAVELING ROCKING HORSE.

APPLICATION FILED FEB. 12, 1908.

903,448.

Patented Nov. 10, 1908.

2 SHEETS—SHEET 1.

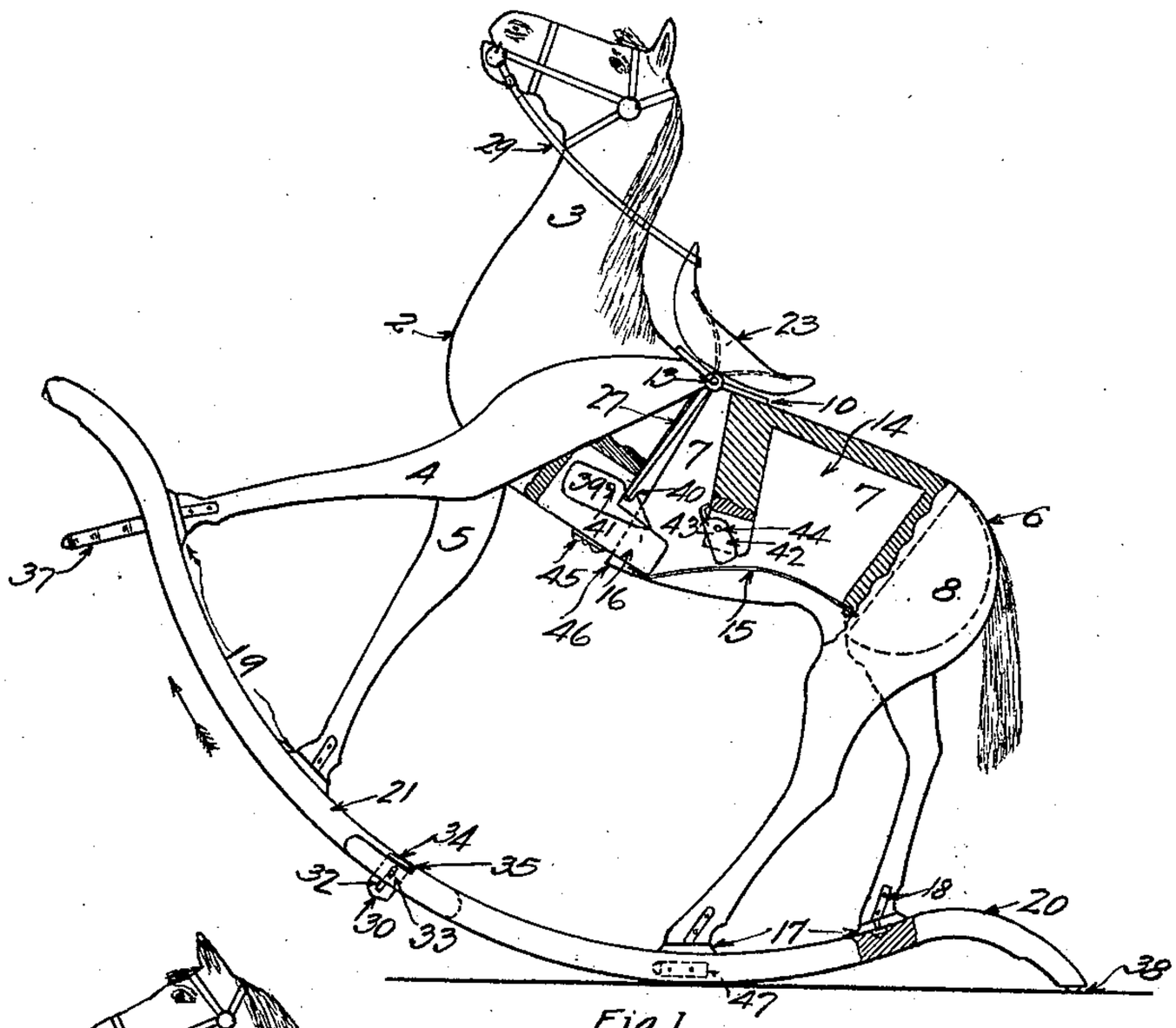

Fig. 1.

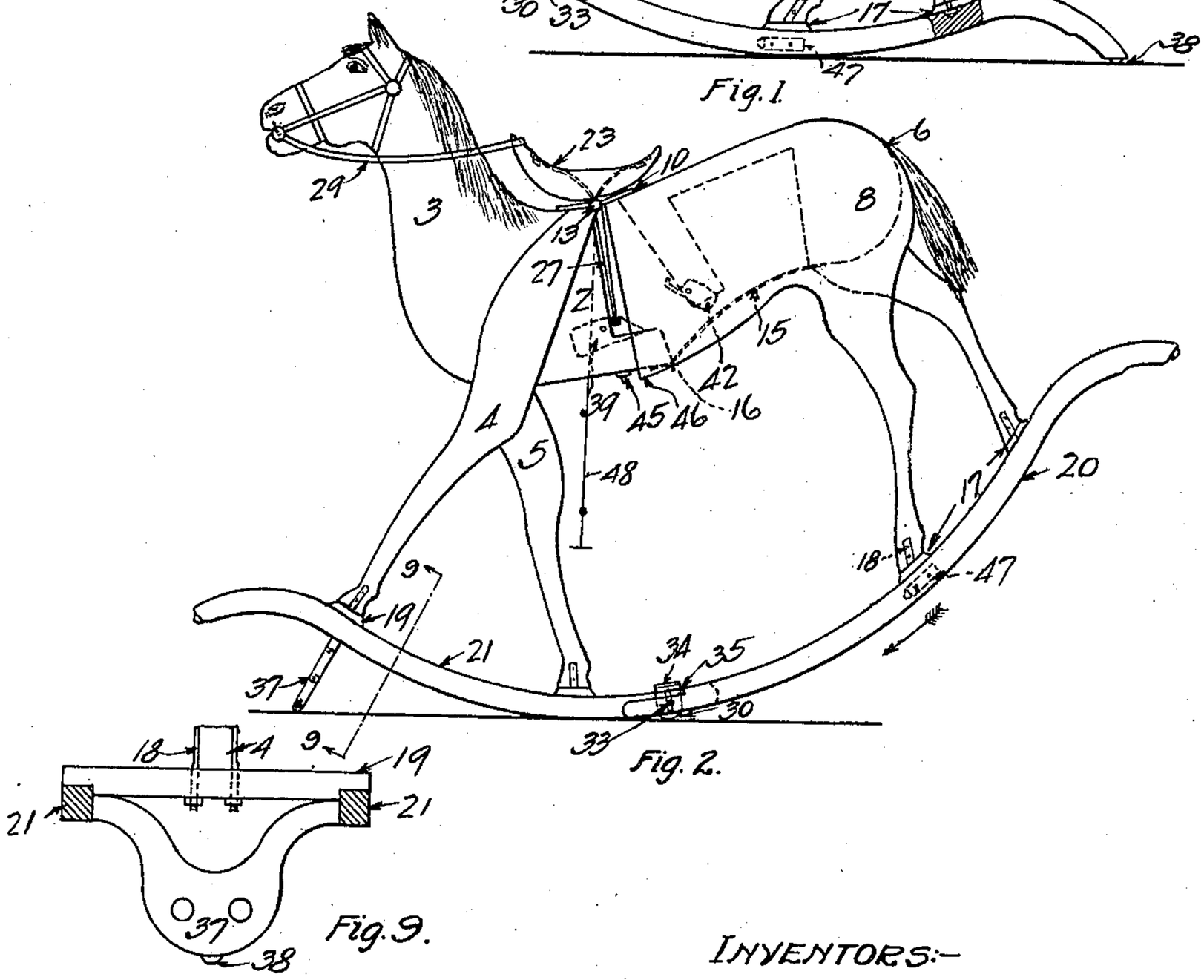

Fig. 2.

Fig. 9.

WITNESSES:—

A. Y. HEAPE.

R. L. Wallace.

INVENTORS:—

Frederic R. Calkins.

Robert O. Hammond.

BY Harry D. Wallace

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2 SHEETS—SHEET 2.

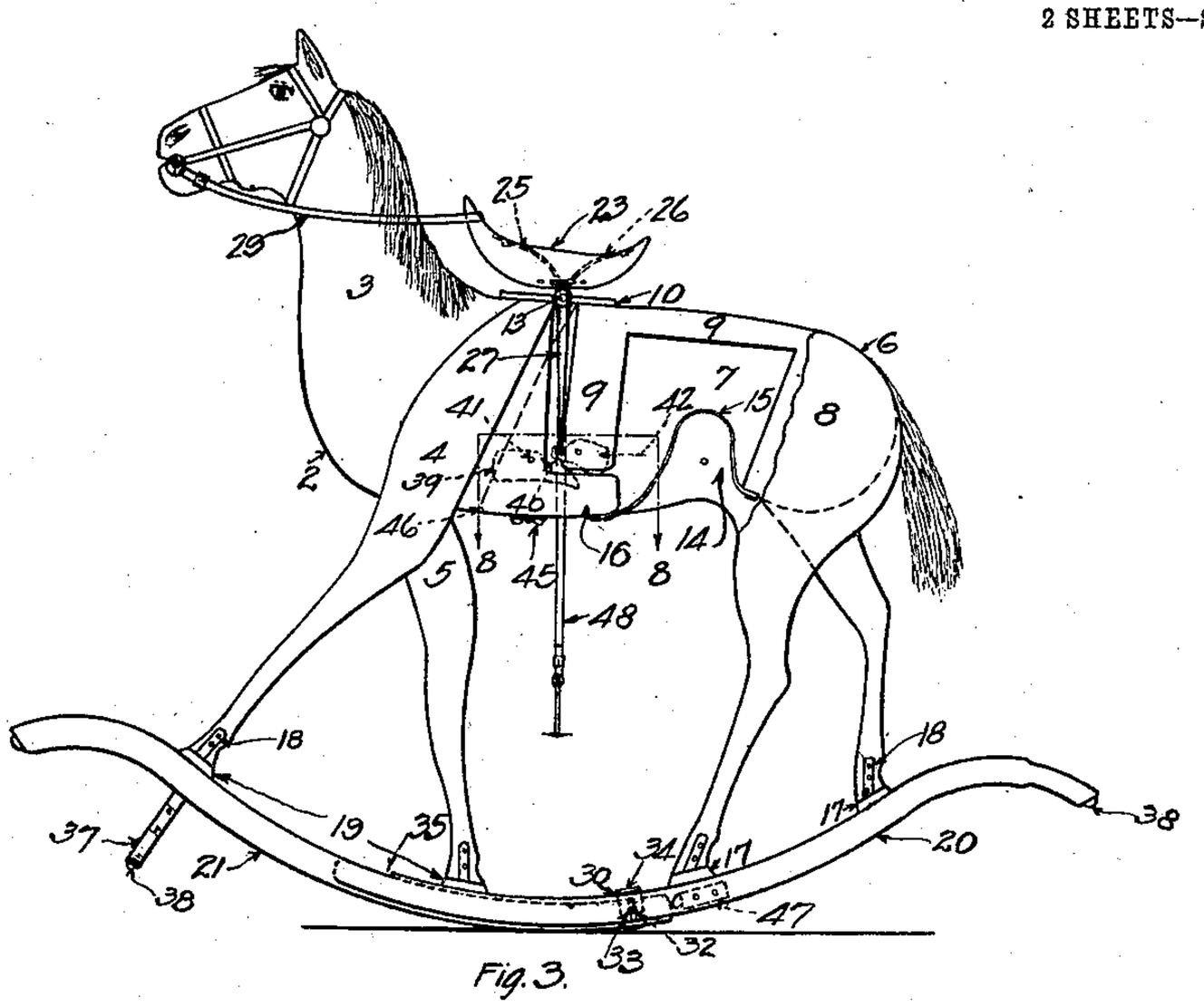

Fig. 3.

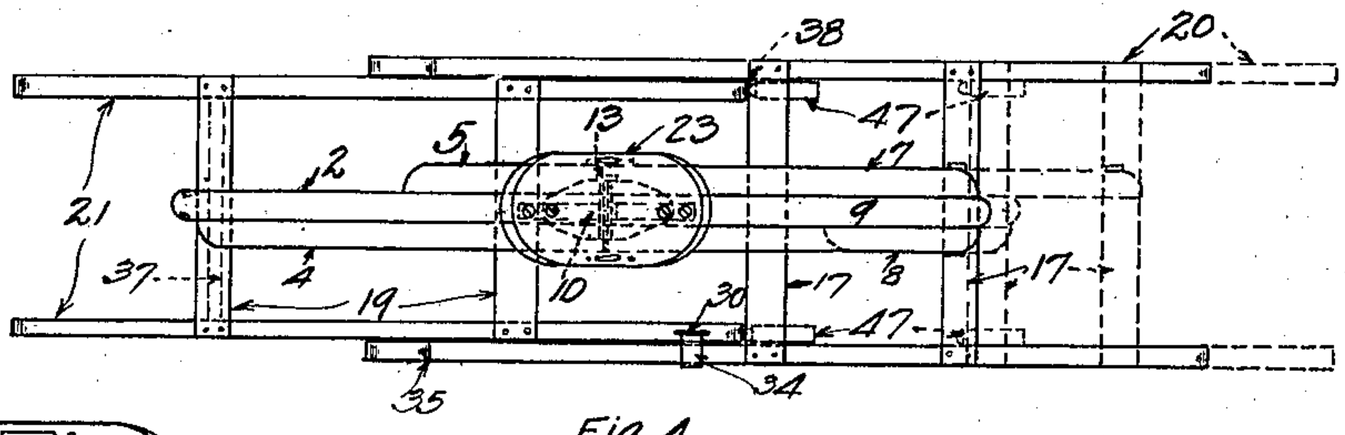

Fig. 4.

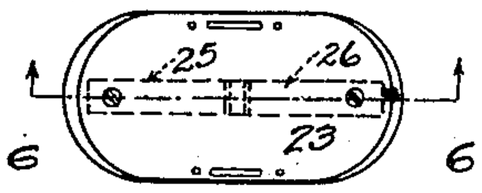

Fig. 5.

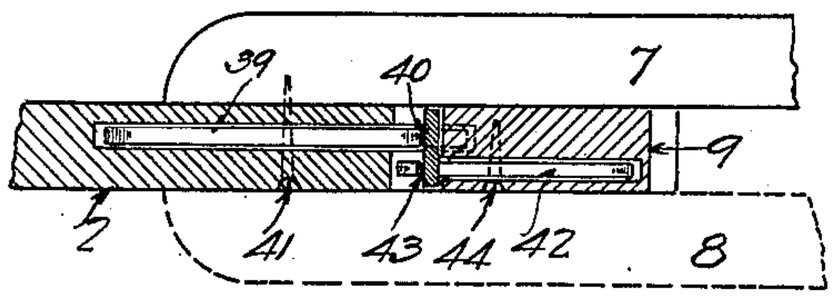

Fig. 8.

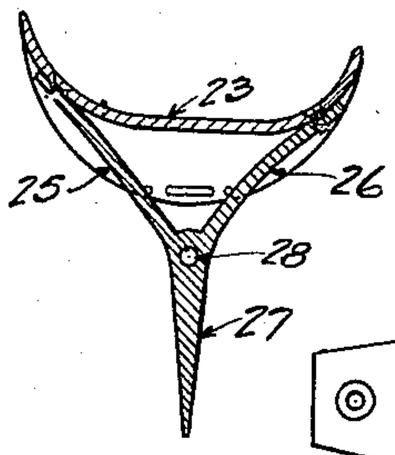

Fig. 6

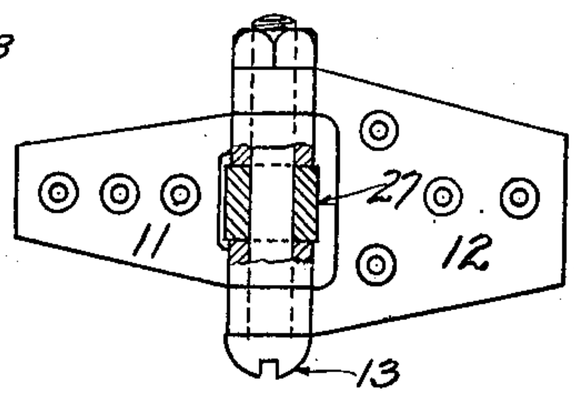

Fig. 7.

WITNESSES:-

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UNITED STATES PATENT OFFICE.

FREDERIC R. CALKINS AND ROBERT O. HAMMOND, OF WATERTOWN, NEW YORK; SAID HAMMOND ASSIGNOR TO THE TOY AND SPECIALTY COMPANY, OF WATERTOWN, NEW YORK, A CORPORATION OF NEW YORK.

TRAVELING ROCKING-HORSE.

No. 903,448. Specification of Letters Patent. Patented Nov. 10, 1908.

Application filed February 12, 1908. Serial No. 415,476.

To all whom it may concern:

Be it known that we, FREDERIC R. CALKINS and ROBERT O. HAMMOND, citizens of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Traveling Rocking-Horses, of which the following is a specification.

This invention relates to improvements in a rocking-horse, designed as a plaything or toy for children, and the invention relates particularly to a device of the class known as traveling rocking-horses.

This invention is intended to be an improvement upon the devices shown and described in Letters Patent of the United States granted to one Roy Barrett, numbered 699,280 and 737,818, dated May 6, 1902, and September 1, 1903 respectively.

The object of the invention is to provide a device, which is designed to be both a rocking-horse proper and a traveling vehicle, the construction and arrangement of its parts being such that the device or toy may be made to travel in either direction without dismounting, and without requiring alteration or adjustment of any of its working parts, the said changes in the working of the device all being accomplished by suitable attitudes and exertions of the rider's body while sitting in the saddle. And a further object is to provide a rocking-horse, which is simple, compact, strong and inexpensive, and wherein fewer and less complicated parts are employed than in other devices of the class.

The invention consists principally in providing an animal figure preferably resembling a horse, arranged with two main body portions connected in a simple manner at or near the middle of the animal's body, the front portion of said body arranged to partially telescope or interfit the rear portion.

The invention further consists in mounting the forward and rear parts of the body upon separate pairs of rockers arranged parallel to each other, the forward pair of rockers being spaced close enough to allow them to loosely fit and work back and forth between the rear rockers.

The invention further consists in providing a saddle and mounting the same upon a hanger of peculiar design, the said hanger being pivoted and held in place by a common pin also employed for connecting the two body parts; the saddle and hanger being concentric with the pivot of a hinge which connects the main body parts.

A further object of the invention is to provide simple and powerful means comprising a lever or arm forming a depending part of the saddle hanger, by means of which the front part of the body of the horse may be lifted and swung on the central pivot, while the rear part remains stationary and vice versa, by the alternated backward and forward swaying of the body of the rider.

The invention further consists in providing a simple flexible stop to limit the stretching apart of the two main body parts, and in providing a series of latches or catches to assist in holding the movable parts of the device in different positions during the operation of the same.

Other features and parts of the invention will be fully described in the detail description which follows, and then particularly pointed out in the appended claims, reference being had to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a side elevation, showing the rocking-horse tilted backward, the front part of the body and front rockers elevated and extended from the rear parts, in readiness to be rocked forward; portions of the front and rear parts broken away, showing the construction and arrangement of the principal working parts. Fig. 2. is a side elevation, showing the device tilted forward, the front rockers bearing on the floor, the front and rear parts still extended, the rear part of the horse and rear rockers elevated and ready to swing forward, as when traveling; also showing by dotted lines the unchanged condition of the working parts. Fig. 3. is a side elevation, showing the front and rear parts of the body and rockers closed up, as after having made a step forward, and the animal standing at rest, or in readiness to repeat the backward rocking; also showing by parts broken away, the altered position of the working parts. Fig. 4. is a plan view of the rocking-horse, the full lines showing the device closed up as in Fig. 3; the dotted lines showing the animal extended as in Fig. 1. Fig. 5. is a plan view of the saddle. Fig. 6. is a vertical section of the saddle and the Y-

shaped supporting part, taken on the line 6—6 of Fig. 5. Fig. 7. is an enlarged plan view of the hinge, employed for pivotally joining the front and rear body parts. Fig. 8. is an enlarged detail sectional view substantially on the line 8—8 of Fig. 3, showing the relative position and arrangement of the catches which engage the spreader lever. Fig. 9. is an enlarged detail view of the stop carried by the front rockers.

Similar numerals of reference are assigned to corresponding parts throughout the several figures.

In the drawings, 2 represents the front portion of the body of the rocking-horse, consisting of the head and neck 3, and the two front legs 4 and 5, 6 represents the rear portion of the horse's body, comprising the right side part 7, the left side part 8 and a spacer or central part 9. All of these parts are preferably made of wood, although sheet metal or other suitable material may be employed with good results. Parts 7 and 8 each preferably include the leg and foot as one part. The parts 7, 8 and 9 and also the several parts comprising the body portion 2 may be glued or otherwise joined together in suitable manner.

10 represents a hinge, preferably a plain, heavy strap-hinge by means of which the front and rear parts 2 and 3 of the body are operatively connected. This hinge is disposed substantially in the middle of the animal's back, as shown in Figs. 1, 2, 3 and 4, at the point where the front and rear body portions meet. The hinge consists of male and female wings or leaves 11 and 12, and these are held together pivotally by a stout pin or bolt 13, preferably held in place by a nut, which prevents the parts of the horse from being separated without detaching the opposing halves of the hinge from the body of the horse, to which they are secured by screws or nails. When the parts 2 and 3 of the body are joined together by means of the hinge 10, part 2 is intended to be in line with spacer 9 of the rear part. The central portion of the spacer 9 is cut away to provide a hollow space 14. One object of this space is to reduce the weight of the rear part of the body, so that it will about equal that of the front part; another object is to provide a hollow space in which a flexible stop 15 may be folded when the parts 2 and 3 close up. The front portion 2 at its lower inner end extends rearwardly in the form of a narrow, slightly curved tongue or arm 16, which is adapted to loosely fit and play between the rear parts 7 and 8 beneath the spacer 9.

The tongue 16 is employed as a guide and support to hold the body part 2 in true vertical alinement with the rear part 3, and also serves in connection with the flexible strap 15, to limit the stretch or extension of parts 2 and 3 during the operation of the horse. The stop 15 is secured at its opposite ends to arm 16 and to the under edge of spacer 9 by screws or nails, as shown in Figs. 1, 2 and 3. Strap 15 is so arranged that when parts 2 and 3 are extended, as shown in Figs. 1 and 2, its length is such that the body parts 2 and 3 may be swung on the pivot 13, the distance required for a forward or backward step or stride of the animal, and when the parts are closed up, the strap folds upwardly, out of sight, in the hollow space 14, as illustrated in Fig. 3.

17 represents a pair of raised parallel cross-bars or parts, upon which the hind feet of the horse are mounted, each foot being securely fastened to one of the cross-bars by means of adjustable clips 18, which are attached to the feet by screws or rivets, their threaded ends passing through the cross-bars and are held firmly in place by suitable nuts, as shown. The feet of body part 2 are mounted upon like cross-bars 19, and are secured to the bars by similar clips and nuts. Cross-bars 17 are secured to the top sides or edges of a pair of parallel rockers 20 made and spaced as shown in the drawings. Cross-bars 19 are mounted upon a pair of parallel rockers 21, substantially like rockers 20, except that they are spaced close enough to pass and play freely between the rear rockers 20. Under this construction and arrangement of the parts of the rocking-horse, after the same have been assembled in working order, having hinge 10 in place and strap 15 secured in proper manner, the front and rear parts 2 and 3 may be spread apart and closed up, and the rockers 20 and 21 will always be overlapped to the extent shown in Figs. 1, 2 and 3. The two pairs of rockers are of substantially the same curvature or radius, as the drawings show, but they are not concentric. The center of the curve of the front rockers being at all times forward of the center of the curve of the rear rockers. The rockers are disposed and maintained in this relation so as to permit either set to be swung toward or away from the other set without touching the floor. If both pairs of rockers were concentric the weight of the horse and the rider would be equally distributed upon all four rockers and it would not be possible to extend the parts of the animal without dismounting.

23 represents a saddle disposed centrally upon the back of the horse above the pivot 13. The saddle is mounted upon a Y-shaped support or part which comprises forwardly and rearwardly extending arms 25 and 26, and a downwardly extending lever or tongue 27. The saddle may be secured to the arms 25 and 26 by means of bolts, or in any other suitable manner.

The saddle support has a perforation 28 near the point where the arms 25 and 26 and

the tongue 27 intersect. The tongue or lever 27 passes through the open center of hinge 10, perforation 28 registering with the loops or eyes of the hinge and receives the pin 13 which holds all of these parts pivotally in the positions and relation as shown. When parts 2 and 3 of the horse are closed up, as in Fig. 3, lever 27 is confined closely between the opposing inner ends of said parts and cannot be moved in either direction without considerable force being applied, and when in such position the saddle will also be held rigidly in the position shown in said figure. When, however, the rider throws his weight against the rear end of the saddle, and at the same time pulls on the bridle rein 29, lever 27, assisted by the pulling on the rein, will lift the front part of the horse swinging the same on the pivot pin 13, until it stretches into the position shown in Fig. 1. This forward and upward movement of body part 2 also carries the front rockers 21 in the same direction until they only slightly overlap the rockers 20, as will be seen by comparing Figs. 3 and 1. When the rockers are drawn apart, as described, in order to make ready for the progress or travel of the horse when rocked forward, it is necessary to provide a means for holding these parts in extended position until the time arrives for closing them up again. To do this we provide a latch or clip 30, which consists of an inverted L-shaped metal part, preferably loosely mounted in a notch or recess formed in the outer face of one of the rockers 21. The body of latch 30 has a central slot 32, by means of which the latch may be moved vertically on a pin 33 which is made rigid in the rocker. The body of the latch 30 is longer than the depth of the rockers, and being loosely mounted on pin 33 gravitates below the rocker 21 when the latter is lifted off of the floor.

Latch 30 has an integral arm 34 which is formed at right angles to the body and extends outwardly over the upper face or edge of the rear rocker 20. Rocker 20 is provided near its front end with a shoulder 35 so positioned that when the horse is extended as shown in Fig. 1, the latch by its own weight will drop in front of and engage the shoulder 35 and hold the rockers in extended position until the animal is rocked forward to the position shown in Fig. 2, the body of the latch then coming in contact with the floor is raised upwardly and the arm 34 clears the shoulder 35. At the instant the latch becomes free the rear part of the horse will lurch or swing forward and the whole device assume the gathered or closed up attitude shown in Fig. 3. In this manner the horse makes a step or jump forward, the distance traveled being equal to the stretch of the rockers 20 and 21. Parts 2 and 3 of the horse will become extended each time the rider leans backward in the saddle and pulls on the bridle reins, the latch 30 catching and holding the rockers apart until the next forward rocking movement releases it from notch 35, then the rear parts will move forward again, and so on. A stop 37 is disposed on the underside of front rockers 21 to limit the forward rocking movement of the device. This stop may be made of wood or any suitable material, and is fitted with a rubber buffer 38 to relieve the shock when the stop strikes the floor. Similar rubber buffers are secured to the ends of the rear rockers 20 for the same purpose.

In order to carry out the object and working of our rocking horse to the best advantage, it has been found necessary to provide a latch or catch 39, of peculiar form, and to pivotally dispose the same in a slot or kerf in part 2 in such manner that, the spreader lever 27 will engage a notch 40 of said latch, each time the rider exerts his weight against the rear end of the saddle. By the use of this latch the lever 27 is held tight against the inner end of the body part 2, and will remain in such position until the rear part 3 of the body swings forward and closes the gap between the two parts. As the parts come together, the lower inner end of the spacer 9 strikes the beveled point of the latch 39 and tilts the latch on its pivot 41, until the end of tongue 27 becomes free from the notch 40. A second latch 42 having a notch 43 and pivoted by means of a pin 44, is mounted in a slot formed in the spacer 9 (see Figs. 1, 2, 3 and 8). Latch 42 like latch 39 is hung eccentrically, and when the horse is stretched as shown in Figs 1 and 2, latch 42 is held with the notch tilted upwardly, but when the parts 2 and 3 come together the lower end of latch 42 makes contact with the inner end of arm 16 of part 2 and the latch is shifted to horizontal position as shown in Fig. 3. As soon as the parts 2 and 3 are closed up and the lever 27 becomes free from the notch in latch 39, by reason of the point of said latch being forced downwardly by the lower corner of spacer 9, its lower end stands over a notch 43 of latch 42, where it will remain until parts 2 and 3 again spread apart. If the rider throws his weight against the rear end of the saddle, and pulls on the reins, front part 2 will swing upwardly, and the lower end of lever 27 will be forced against, and move upwardly with rear end of part 2, and notch 40 of latch 39, as soon as the latter becomes free from part 9, will tilt upwardly and engage and hold the lower end of lever 27 in said position as long as parts 2 and 3 remain spread apart. As soon as parts 2 and 3 are spread a short distance apart, latch 42 will become free from arm 16 and gravitate to its resting position (Figs. 1 and 2).

When sections 2 and 3 of the horse are closed up, as in Fig. 3, the lower end of lever 27 is not in engagement with either of the notches 40 and 43, but it is positioned directly over both of said notches, ready to be engaged by the former in case front part 2 is swung away from the rear part, and also ready to be engaged by the latter notch, in case the rear part is swung away from the front part.

The foregoing describes the manner of operating the horse when it is desired to make it travel in the forward direction. To travel backward, the rider mounting the horse when standing at rest, as in Fig. 3, will first throw his weight against the front end of the saddle, at the same time rocking the horse forward till the stop 37 strikes the floor. With the horse in this position and his weight still against the front end of the saddle, the lever 27 will be thrown against the inner end of rear part 3, and by means of the leverage thus exerted, rear part 3 will be swung upwardly away from part 2. The latch 30 will engage the shoulder 35 of rockers 20, in the same manner as before described, and the lever 27 will be engaged by notch 43 of latch 42 and will remain there until the animal is rocked backward the full distance, which movement will free latch 30. Then front part of the animal will swing backward on the pivot 13 and close up with rear part 3, and a step backward will have been completed.

To convert the device into a simple rocking-horse, the rider should first spread parts 2 and 3 apart in the manner described (see Fig. 1) and while thus extended he may reach with one hand beneath the animal's body and manipulate a button 45, setting it in the position shown in Fig. 2. The button 45 is loosely pivoted to the underside of part 2, and when set at right angles to said part, its opposite ends will engage the lower front corner 46 of the rear side parts 7 and 8 and thus prevent the telescoping or closing up of parts 2 and 3. As long as button 45 remains in this position the horse may be rocked freely but will not travel. When the button is not in use, it is swung around in line with the lower edge of part 2 (see Fig. 1) and in that position it will pass in and out of the part 3 without interfering with the extending or gathering of said parts.

47 represents a pair of rigid stops secured to the inner sides of the rockers 20. These stops are provided to limit the closing movement of the parts of the device, and to prevent the straining or breaking of hinge 10 by reason of the parts coming together with considerable force. Each stop is fitted with a rubber buffer 38, the same as provided for the rockers and stop 37, for the purpose of absorbing the shock and deadening the noise of the parts when they close up.

Obviously some changes may be made in the parts within the scope defined by the appended claims, and we therefore do not restrict ourselves to the precise construction and arrangement of the same as shown and specified herein.

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

1. A traveling rocking-horse, comprising a front and rear body part each body part mounted upon a separate pair of rockers, a strap-hinge to pivotally connect said body parts and having an opening through its center, a saddle, a support for said saddle comprising two oppositely disposed arms to which the saddle is secured and having a depending tongue or lever which passes through the opening in said hinge and extends downwardly between the inner ends of said body parts, the said support having a transverse perforation adapting it to be pivoted concentrically with said hinge, the tongue or lever portion of said support adapted to lift or move either of said body parts away from the other when sufficient weight is applied to the opposite ends of the saddle.

2. A traveling rocking-horse, comprising separate front and rear body parts, each body part mounted upon a separate pair of parallel rockers adapted to interfit and overlap each other, a strap-hinge to pivotally join said body parts at or near the center of the horse's back, and having an opening through its center, a saddle, a support for said saddle, consisting of a Y-shaped part having oppositely disposed arms at its upper end to which the saddle is secured, and having a downwardly extending tongue adapted to be inserted through and to project below the opening in said hinge, the said support having a perforation by means of which the support and saddle are pivoted concentrically with said hinge, the said tongue disposed between the inner ends of the said body parts and adapted to lift or swing either of said body parts on said pivot away from the other body part when the weight of the rider is exerted upon the ends of the saddle, a catch carried by the front part adapted to engage and hold the free end of said tongue against the inner end of the front body part while said part is being swung away from the rear part, a second catch carried by the rear body part adapted to engage and hold the free end of said tongue against the inner end of said rear body part, while the latter is being moved away from the front part, and a latch mounted upon one of the front rockers adapted to hold all said rockers and said body parts in extended position until released by the forward or backward rocking of the horse.

3. A traveling rocking-horse, comprising

separate front and rear body parts, each body part mounted upon a pair of parallel rockers having the same curvature and adapted to be overlapped, a hinge to pivotally join said body parts, comprising two leaves joined together by a pivot pin and having an opening through the center of the hinge, a flexible stop having its opposite ends secured to the front and rear body parts, adapted to limit the spreading movement of said parts, a saddle, a Y-shaped support for said saddle having two arms at its upper end to which the saddle is secured, and having a downwardly extending lever adapted to be inserted through the opening in said hinge, the said support pivotally connected to said hinge by means of said pivot pin, the said lever disposed between the inner ends of said body parts adapted to effect the spreading of said body parts in either direction by the shifting of the weight of the rider in the saddle, a catch to hold said lever against the inner end of said front body part, while said part is being swung on said pivot, a second catch to hold said lever against the inner end of the rear body part, while said part is being swung away from the front part, and a latch operable by gravity carried by one pair of rockers adapted to hold the body parts extended while said latch is held away from the floor, but when brought into contact with the floor to release said extended parts and effect the gathering or closing up of the same, substantially as described.

4. A traveling rocking-horse, comprising a rear body part having a central hollow space in its front end, and a front body part having an arm projecting rearwardly from its inner end, in position to fit and play in said hollow space, the said body parts pivotally joined together by means of a hinge secured to the back of the animal, each body part mounted upon a separate pair of parallel rockers adapted to overlap each other, a Y-shaped saddle support pivoted concentric with said hinge, the upper arms thereof adapted to support said saddle, the lower stem or arm of said support disposed between the opposing inner ends of the two body parts, adapted to effect the spreading of said body parts in either direction by the shifting of the weight of the rider in the saddle, a strap having its opposite ends secured to the front and rear body parts adapted to limit the stretching or spreading of said body parts, a gravitating latch carried by one pair of rockers adapted to hold both pairs of rockers in extended position, and an eccentrically disposed catch mounted on the inner end of each of the body parts adapted to control the operation of said stem or arm, substantially as described.

5. A traveling rocking-horse, comprising a rear body part having a hollow space in its inner end, and a front body part having a tongue formed on its inner end in line with and adapted to fit and work in the hollow space of said rear part, the said parts pivotally joined together by means of a hinge disposed upon the back of the horse, each of said body parts mounted upon a pair of parallel rockers adapted to interfit and overlap each other, a Y-shaped saddle support pivotally disposed in the center of said hinge, the upper arms of said support adapted to carry a saddle, the lower arm of said support disposed between the inner ends of said body parts and adapted to effect the spreading of said body parts when the saddle is tilted in either direction by the shifting of the rider's weight, and a flexible stop connected to the front and also to the rear body part adapted to limit the stretching or extending of said body parts, substantially as described.

6. A traveling rocking-horse, comprising a rear body part having a hollow space in its inner end, and a front body part having a tongue formed on its inner end in line with and adapted to fit and work in the hollow space of said rear part, the said body parts pivotally joined together by means of a hinge disposed on the back of the horse, each of said body parts mounted upon a pair of parallel rockers adapted to interfit and overlap each other, a saddle, a Y-shaped saddle support pivotally disposed in a central opening in said hinge, the upper arms of said support adapted to carry the saddle, the lower tongue or arm of said support disposed between the inner ends of said body parts and adapted to effect the spreading of said body parts when the saddle is tilted in either direction by the weight of the rider, a gravitatable latch carried by one pair of rockers adapted to hold all of said rockers in extended position until said latch is brought into contact with the floor by the forward or backward rocking of the horse, and a flexible stop connected to the front and also to the rear body parts adapted to limit the stretching or extending of said body parts, substantially as described.

7. A traveling rocking-horse, comprising a rear body part having a hollow space in its inner end, and a front body part having a tongue formed on its inner end in line with and adapted to fit and work in the hollow space of said rear part, the said body parts pivotally connected together by a hinge disposed on the back of the horse, each of said body parts mounted upon parallel rockers adapted to interfit and overlap each other, a saddle, a Y-shaped saddle support pivotally disposed in the center of said hinge, the upper arms of said support adapted to carry the saddle, the lower arm of said support disposed between the inner ends of said body parts and adapted to effect

the extending of said body parts when said arm is tilted in either direction by the forward or backward shifting of the rider's weight in the saddle, a self-acting catch carried by the front body part adapted to hold the lower arm of said support against the inner end of said part while the same is being swung away from the rear part, a self-acting catch carried by the rear body part adapted to hold the lower arm of said support against the inner end of the rear part while it is being swung away from the front body part, and a flexible stop connected to the front and also to the rear body part adapted to limit the stretching or extending of said body parts, substantially as described.

8. A traveling rocking-horse, comprising a rear body part having a hollow space in its inner end, and a front body part having an arm formed on its inner end in line with and adapted to fit and work in the hollow space of said rear part, the said body parts pivotally joined together by a hinge disposed on the back of the horse, each of said body parts mounted upon a pair of parallel rockers adapted to interfit and overlap each other, a saddle, a Y-shaped saddle support pivotally disposed in the center of said hinge, the upper arms of said support adapted to carry the saddle, the lower tongue of said support disposed between the inner ends of said body parts and adapted to effect the spreading of said body parts when the saddle is tilted in either direction by the shifting of the rider's weight in the saddle, a gravity latch carried by one pair of rockers adapted to hold all of said rockers in extended position until said latch is brought into contact with the floor by the forward or backward rocking of the horse, a self-acting catch carried by the front body part adapted to hold the tongue of said support against the inner end of said part while the same is being swung away from the rear part, and a self-acting catch carried by the rear body part, adapted to hold the tongue of said support against the inner end of the rear part while said part is being swung away from the front body part, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDERIC R. CALKINS.
ROBERT O. HAMMOND.

Witnesses:
E. C. WRIGHT,
HARRY DE WALLACE.