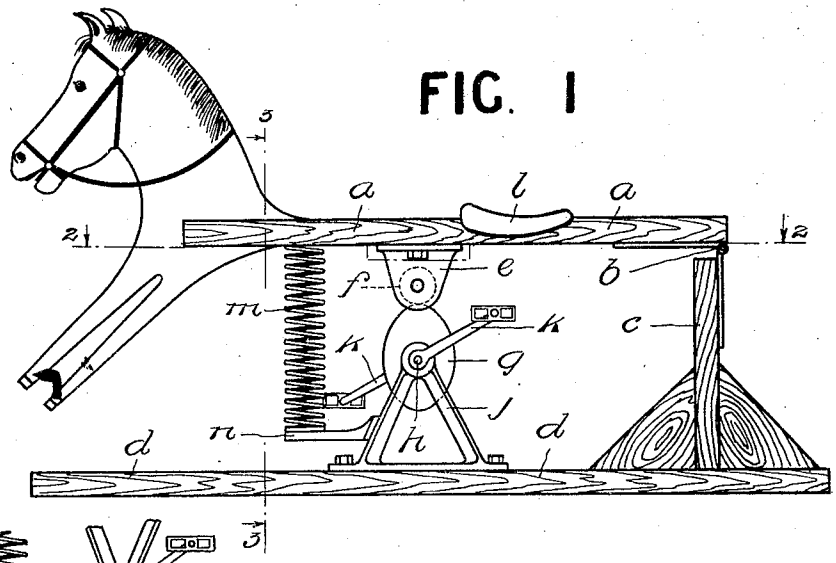
Oct. 8, 1929. F. W. BRACKETT 1,730,557

ROCKING OR HOBBY HORSE

Filed March 31, 1927

FIG. 1



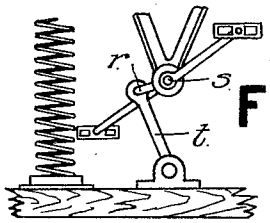


FIG. 6

FIG. 2

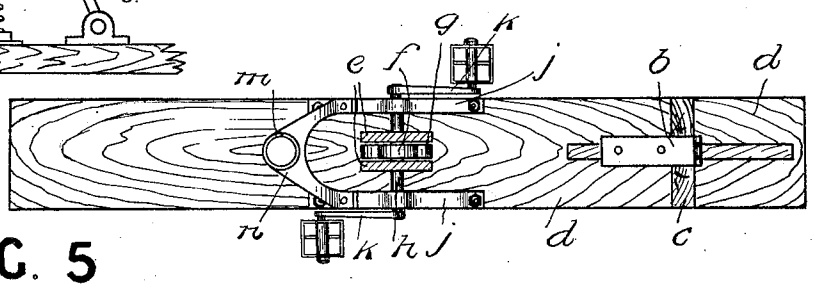


FIG. 5

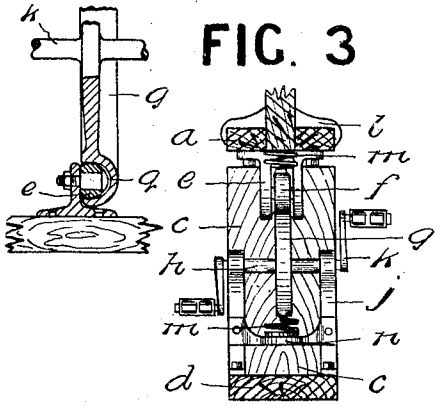
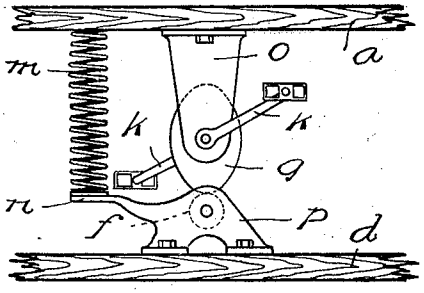


FIG. 3

FIG. 4



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UNITED STATES PATENT OFFICE

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ROCKING OR HOBBY HORSE

Application filed March 31, 1927, Serial No. 179,933, and in Great Britain May 26, 1926.

It is an object of the present improvements to provide a toy horse, so arranged that the rider, by turning cranks with the feet may cause the horse to rise and fall under the action of one or more cams, cranks, or eccentrics.

It is also an object to arrange a spring or springs, so that as the horse falls, the spring or springs will be compressed, and will assist the upward movement under the stroke of the crank-actuated cam or eccentric. By this means a more even movement on the pedal is maintained.

With these objects in view, the improvement consists in the combinations hereinafter described and illustrated, and included in the claims.

Figure 1 is an elevation of one embodiment of the improvement.

Figure 2 is a horizontal section on line 2—2 of Figure 1.

Figure 3 is a vertical section on line 3—3 of Figure 1.

Figure 4 is a fragmentary view, similar to Fig. 1, but illustrating a modification.

Figure 5 is a fragmentary view showing in section a modification of the cam and roller.

Figure 6 shows a still further modification of the driving mechanism.

In the embodiment illustrated in Figs. 1, 2 and 3, the 'horse' *a* is mounted on a hinge *b* at the rear on an upstanding pillar *c* from a base or frame *d*. On the underside of the 'horse' is secured a forked lug *e* projecting downwardly and carrying within it a roller *f* whose periphery lies well within the edges of the lug. The lug receives the edge of a cam or elliptical roller *g*, mounted on an axle *h*—in brackets *j* on the base and the roller *f*—rests upon the periphery of the cam. The axle *h* is provided with pedal cranks *k* so that the axle and cam can be rotated by a rider seated on the saddle *l*. Under this action the 'horse' will rise and fall on its hinge *b*, the weight of the horse and rider bearing on the cam. To promote more 'life' to motion of the horse, and to relieve the rider of excessive friction on the cam on the upstroke, I arrange a spring or springs *m* in compression between the horse and a suitable fixed part, such as a yoke *n* carried from the brackets *j*.

In the modification shown in Figure 4, the crank axle *h* and cam *g* are mounted in an extended fork *o* on the 'horse', and the follower or roller is mounted between brackets *p* on the base, but the action is the same. The mounting of the horse and arrangement of the spring are as before described.

In the modification shown at Figure 5, the cam *g* consists of an elliptical wheel or disc with an annular channel or groove *q* in the side of its periphery, in which the roller *e* engages, the crank shaft *k* being arranged in the centre of the wheel or cam disc as before. This arrangement retains the cam in engagement with the roller, otherwise the construction is as in the previous examples.

In the modification shown at Figure 6, the rising and falling action is effected by a crank dip *r* on the pedal shaft *s*, to which is attached a rod *t* connected at one end to the base or to the horse.

It is obvious that the base *d* may constitute a running frame by providing it with suitable wheels, and if desired, one pair may be driven by means of a chain from the crank axle and the other pair, or a single wheel may be arranged for steering.

I claim:

1. A toy 'horse' comprising, in combination, a 'horse', a base upon which the 'horse' is hingedly mounted, mechanical means for raising and lowering the 'horse' upon its hinge, pedal cranks actuating said means, and a spring between the 'horse' and base, so that by the rotation of the cranks, the 'horse' will rise and fall whilst maintaining an even movement on the cranks.

2. A toy 'horse' comprising in combination a base or running frame, a 'horse' hinged to a part thereon, a crank axle, a cam mounted thereon, a following roller engaging the cam both disposed between the base and the 'horse,' and a spring normally tending to raise the 'horse.'

3. A toy 'horse,' comprising in combination a base or running frame, a 'horse' hinged to a part thereon, a crank axle, a cam mount-

ed thereon, a following roller engaging the cam both disposed between the base and the 'horse,' means for retaining said cam and said roller in engagement, and a spring normally tending to raise the 'horse.'

4. A toy horse, comprising in combination a base or running frame, a 'horse' hinged to a part thereon, a crank axle, a cam mounted thereon, a following roller engaging the cam both disposed between the base and the 'horse,' means for retaining said cam and said roller in engagement, consisting of an annular groove in the side of the periphery of the cam in which the roller is housed, a bracket on the base, and a spring normally tending to raise the 'horse' and arranged in compression between said bracket and the horse.

In testimony whereof I affix my signature.

FRANCIS WHITWELL BRACKETT.