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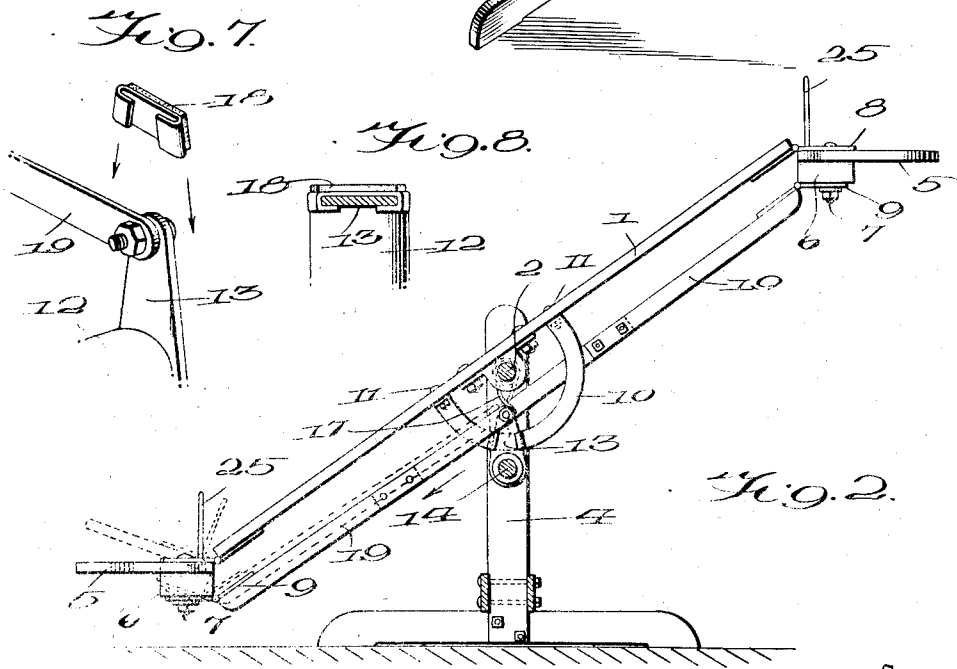
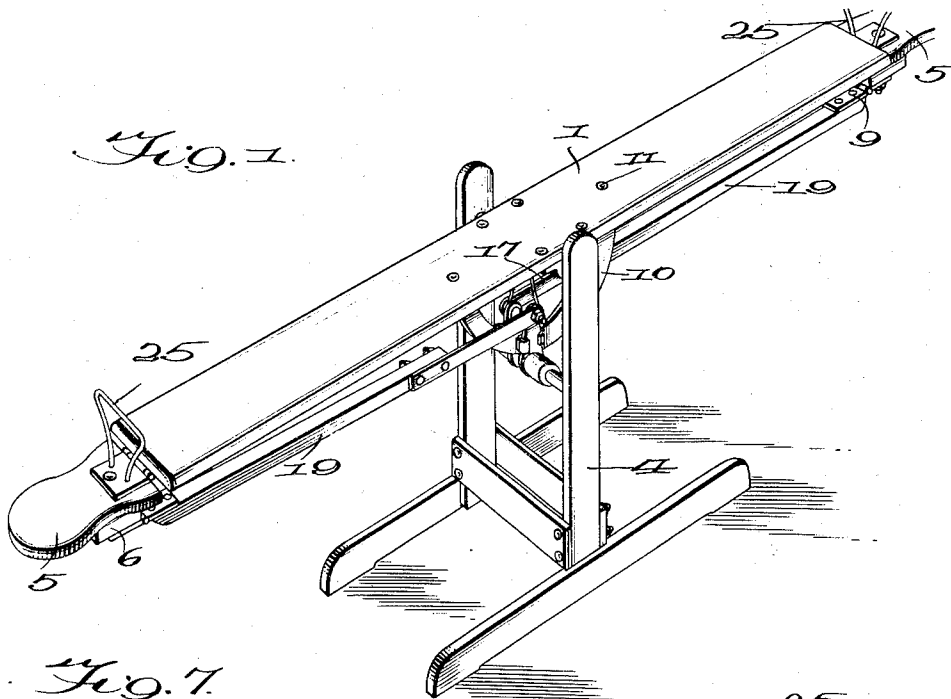
H. F. HUSTED

1,978,264

SEESAW

Filed Nov. 25, 1932

2 Sheets-Sheet 1



Inventor

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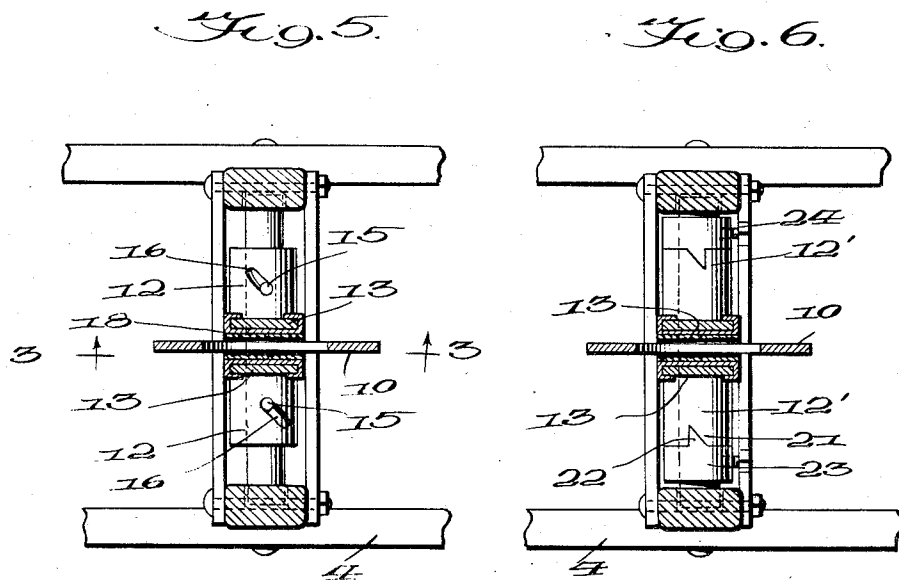
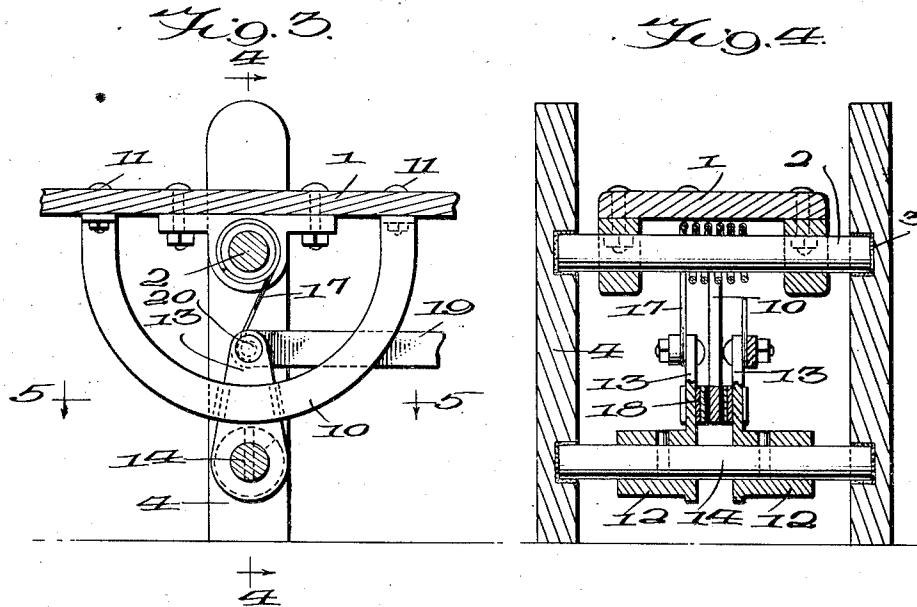
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UNITED STATES PATENT OFFICE

1,978,264

SEESAW

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10 Claims. (Cl. 272—54)

My invention relates to an improvement in seesaws.

Many accidents have resulted from children thoughtlessly as well as sometimes intentionally jumping from the lowermost end of a seesaw, with the result that the one left in the air virtually falls to the ground, not infrequently breaking a leg, spraining an ankle, or becoming otherwise injured.

The object of this invention is to provide a brake which applies itself automatically the moment a person leaves one end of the seesaw, thus avoiding the dangers hitherto encountered in the use of seesaws.

In the accompanying drawings:

Fig. 1 is a view in perspective;

Fig. 2 is a side elevation partly in section;

Fig. 3 is an enlarged sectional view through line 3—3 of Fig. 5;

Fig. 4 is a transverse vertical section on line 4—4 of Fig. 3;

Fig. 5 is a horizontal section on line 5—5 of Fig. 3;

Fig. 6 is a similar section showing a slight modification; and

Figs. 7 and 8 are details of one of the brakes and brake-shoes.

The numeral 1 represents the usual plank of a seesaw. This is mounted on a rocker-shaft 2, which turns in bearings 3 in the support or pedestal 4.

The seats 5 are preferably held to blocks 6 by means of bolts 7 which extend through the seats, blocks, and the outer ends of the hinges 8 and 9, which have been adopted as a simple means for hingedly connecting the seats with the outer ends of the plank 1. The brake means consists in a brake drum or segment 10, the ends of which are rigidly secured by bolts or other means 11 to the center of the plank 1 in position to turn with the operation of the seesaw between a pair of clutch-brakes which normally engage the brake drum or segment on opposite sides. These clutch-brakes include hubs 12 and arms 13. The hubs are mounted to turn on a pin 14, the ends of which are supported in the uprights of the pedestal 4 as shown in Figs. 3 and 4.

In the construction illustrated in Fig. 5, studs 15 secured in the pin 14 extend through the spiral slots 16 in the hubs, and have the effect of moving the hubs endwise toward and away from the brake-drum or segment 10, accordingly as they are turned in one direction or the other.

A spring or springs 17, for convenience wound around the rocker-shaft 2, engage the arms 13

and normally force the hubs inwardly and brace the brake-shoe linings 18 on the arms 17 against the brake-drum or segment 10 (Figs. 7 and 8).

Bars 19 are pivotally connected with the arms 13 by means of pins 20, and the ends of these bars 19 are connected to the hinges 9 as shown in Figs. 1 and 2.

Assuming the seesaw is in the position shown in Fig. 2 and a child is stationed on each seat, and the child on the lowermost seat at the left steps off, the seat will instantly take the position indicated by dotted lines due to the action of the spring 17, which means that the connected bar 19 will be drawn in the direction of the arrow, and with it the connected arm 13 will be pulled to the left, with the result that the spiral slot 16 of the hub 12 will press against the stud 15 and be forced inwardly and the brake-shoe lining attached thereto will be forced against the brake-drum or segment 10, thus applying sufficient friction so that the occupant of the uppermost seat will gradually descend instead of dropping suddenly as is common in other seesaws.

In Fig. 6, in lieu of the studs 15 and the slots 16, the outer ends of the hubs 12' have a clutch formation with an inclined recess 21, which engages a corresponding beveled surface 22 on a collar 23 secured on the pin 14. These collars are held fixed on the fixed pin 14 by set-screw or other means 24, all of which is illustrated in Fig. 6.

Handles 25 may be stationed on the seats 5, or they might be placed on the outer ends of the plank 1.

By means of this seesaw, the element of danger and accident is made negligible by this very simple mechanism which has been described and which forms a part of my invention.

In addition to the two alternative forms described, it is possible other modifications might be made, as it is my desire to include various forms of automatic brake mechanism for checking the movement of the seesaw instantaneously upon the two ends becoming unbalanced, by reason of a child leaving one seat while the other child is left in an elevated position.

I claim:

1. A seesaw having seats hinged at the outer ends thereof, and automatic frictional brake mechanism connected with each seat.

2. A seesaw including a pivotally mounted plank, seats hinged thereto, bars to which the seats are also hinged, a frictional brake mechanism to which the bars are connected, the bars having the double function in cooperation with the plank of maintaining the seats in a hori-

zontal position when weight is carried by said seats, and also of applying the brake instantaneously upon the removal of the weight on either or both of the seats.

- 5 3. A seesaw including a pedestal, a plank pivotally mounted on the pedestal, seats hinged to the plank, and bars to the outer ends of which the seats are also hinged, brake mechanism including rotatable hubs mounted on said pedestal,
10 means for moving said hubs endwise as they are rotated, the bars pivotally connected with the hubs, a braking segment connected with the plank, means carried by the hubs for engaging said segment, and spring means for normally
15 causing such engagement.

4. A seesaw including a support, a plank pivotally mounted thereon and carrying a segmental braking surface, bars, seats hingedly connected with the outer ends of the plank and bars, rotatable hubs mounted on said support, arms connected therewith to which the bars are pivotally connected, said arms carrying brake-shoe linings in position to engage the segmental braking surface, means for holding the linings normally out
20 of engagement with the segmental braking surface and means for pressing the linings against the segmental braking surface when the bars are moved outwardly due to removal of weight from one or both of the hinged seats.

5. A seesaw including a support, a plank pivotally mounted thereon and carrying a segmental braking surface, bars, seats hingedly connected with the outer ends of the plank and bars, rotatably mounted hubs secured to said support, said
35 hubs mounted on a pin and having spiral slots, studs extending from the pin into the slots, arms connected with the hubs to which the bars are pivotally connected, said arms carrying brake-shoe linings in position to engage the segmental braking surface, means for holding the linings normally out of engagement with the said braking surface, and means for forcing the linings against the braking surface when the bars are moved outwardly due to removal of weight from
40 one or both of the hinged seats.

6. A seesaw including a support, a plank pivotally mounted thereon, and carrying a segmental braking surface, bars, seats hingedly con-

nected with the outer ends of the plank and bars, rotatably mounted hubs, a pin on which these hubs are mounted, said pin secured to said support, clutch-faces formed on the outer ends of said hubs, collars secured to the pin and having clutch faces in position to engage the clutch-faces of the hubs, arms connected with the hubs to which the bars are pivotally connected, said arms carrying brake-shoe linings in position to engage the segmental braking surface, means
80 for holding the linings normally out of engagement with the braking surface, and means for forcing the linings into engagement with the braking surface when the bars are moved outwardly due to removal of weight from one or both
85 of the hinged seats.

7. A seesaw including supports, a plank pivotally mounted thereon, a segmental braking surface carried thereby, bars, seats hingedly connected to the outer ends of the plank and bars, hubs rotatably mounted on a pin secured to said supports, arms connected with the hubs to which the bars are pivotally connected, said arms carrying brake linings in position to engage the braking surface, means for
90 holding the linings out of engagement with the braking surface, and means for forcing the linings against the braking surface when the bars are moved outwardly therefrom due to the removal of weight from one or both of the hinged
95 seats.

8. A seesaw having seats hinged to the outer ends thereof, a frictional brake mechanism, and bars extending between the said brake mechanism and the said seats.
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9. A seesaw having seats hinged to the outer ends thereof, bars for maintaining said seats in a horizontal plane, and a frictional brake mechanism connected to the ends of said bars remote from the connection of said bars with
105 the said seats.

10. A seesaw having seats hinged to the outer ends thereof, a frictional brake mechanism mounted approximately in the center of said seesaw, and bars extending between said brake
110 mechanism and said seats for operating said brake mechanism.

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