Aug. 21, 1945. W. A. AYRES 2,383,232

TOY

Filed March 28, 1945

Fig. 1.

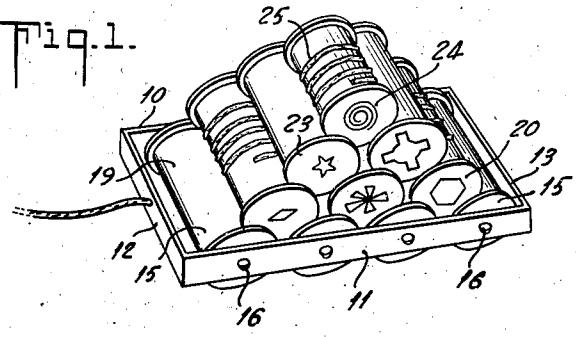


Fig. 2.

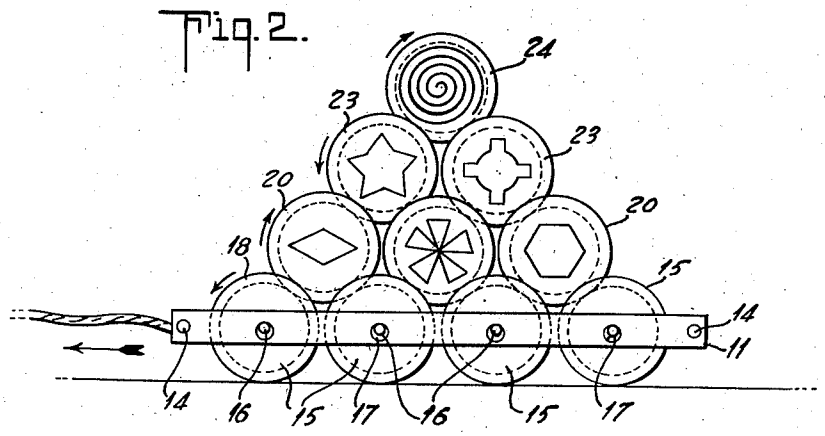


Fig. 4.

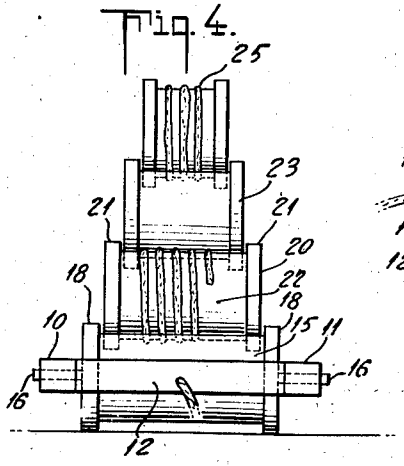
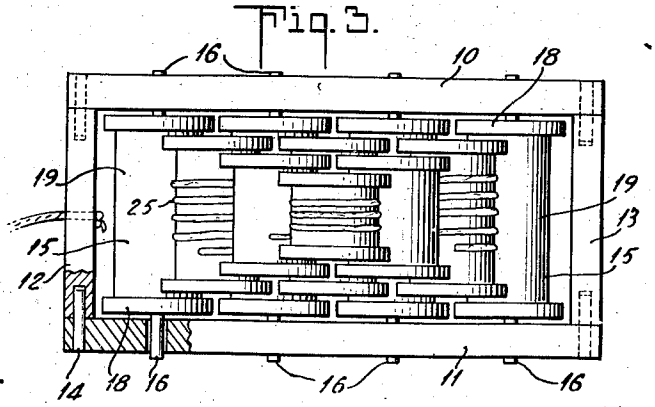


Fig. 3.



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Application March 28, 1945, Serial No. 585,342

4 Claims. (Cl. 46—201)

The present invention relates to toys, and is more particularly directed toward toys suitable to be drawn along by a string.

The present invention contemplates a wheeled toy employing a number of spools some of which are fastened to a frame, while the others are loose but rest on those fastened on the frame, and, when the toy of the present invention is dragged along a supporting surface, the lower set of spools revolve as wheels, while the upper set of spools supported on the lower ones revolve on the lower ones in the opposite direction.

The present toy is one which affords amusement to children and can be made comparatively large without becoming excessively heavy, and can to a large extent be put together and taken apart by the child without possibility of injury.

The accompanying drawing shows, for purposes of illustrating the present invention, an embodiment in which the invention may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In the drawing:

Figure 1 is a perspective view of the toy;

Figure 2 is a side elevational view of the toy;

Figure 3 is a top plan view of the toy with parts broken away to show interior construction; and

Figure 4 is an end elevational view.

The toy shown in the drawing employs a rectangular frame having side members 10 and 11 and end members 12 and 13. These may be made of wood and held together with dowels indicated at 14.

The frame carries a lower set of spools 15, four of which are here shown. These spools are mounted on axles 16 which extend through holes 17 in the side members 10 and 11 of the frame. The holes are preferably slightly larger than the axles so that there can be limited vertical adjustment of the spools relative to the frame. The spacing of the axles is slightly greater than the diameter of the flanges 18, 18 of the spools so that the flanges are out of contact as will be apparent in Figures 2 and 3.

When a toy employing simply the frame and the lower set of spools is moved along a surface, for example, to the left as indicated in Figure 2, all of the spools will rotate in a counter-clockwise direction. Each of the spools 15 has a body portion 19 of somewhat smaller diameter than the flanges 18.

Three spools 20 form a second set. They have flanges 21 here shown as of the same diameter as the flanges of the other spools and body portions 22 shown to have the same diameter as the body portions of the other spools. The spools 20 are shorter than the spools 15 and preferably of just such length that the flanges 21, 21 fit in between the flanges 18, 18. This set of spools will revolve in a clockwise direction as indicated by the arrow in Figure 2.

A third set of spools 23 similar to the other spools but shorter rests on the spools 20 and a single upper spool 24 similar to the other spools but still shorter rests on the spools 23, 23.

When the toy is in use all the spools will rotate in directions such as indicated by the arrows in Figure 2, and it is possible to provide spools with various ornaments on the end such as illustrated in the drawing, and, when these ornaments are revolved, they provide an animation which is of considerable interest. This is also accentuated by placing spirals such as indicated at 25 on the spools. The spools need not however be of the uniform diameter.

The child can readily remove all the spools, except the lower set, and can replace the spools of each set either end to, and can also play with the spools as separate toys, hence the play value of the device is increased over what it would be if all the parts were permanently secured together.

It is apparent that, within the scope of the invention, modifications and different arrangements may be made other than is herein disclosed, and the present disclosure is illustrative merely, the invention comprehending all variations thereof within the scope of the claims.

What is claimed is:

1. A toy comprising a frame, a plurality of spools having a cylindrical body portion and having end flanges, means to mount the spools in the frame on axes substantially in a single plane parallel with one another and spaced slightly greater than the diameter of the spool flanges whereby the spools may act as wheels which revolve freely in the same direction when the toy is moved over a supporting surface with which the flanges are in contact, and a lesser number of similar spools having flanges of lesser extreme spacing than the least spacing of the flanges of the first named spools, each of the second named spools resting on the bodies of two of the first named spools between the flanges and being driven by the first named spools in a direction opposite that of the first named spools.

2. A toy as in claim 1, wherein the first named spools are on axles passing through oversize holes in the frame whereby the said spools have limited

freedom of movement vertically to facilitate contacting with an irregular supporting surface.

3. A toy as in claim 1, having a third set of similar shorter spools of less number than the second set, the flanges of the third set resting on the bodies of the spools of the second set.

4. A wheeled toy having a supporting frame, and a plurality of sets of spools having flanges and bodies, one set of spools being mounted in the frame for rotation about parallel axes at a common level, a second set of spools being one less in number and having their flanges resting on the bodies of the first set, the next and each succeeding set being one less in number and having flanges of its spools resting in the bodies of the next lower set.

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