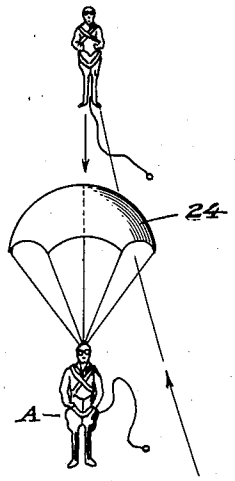
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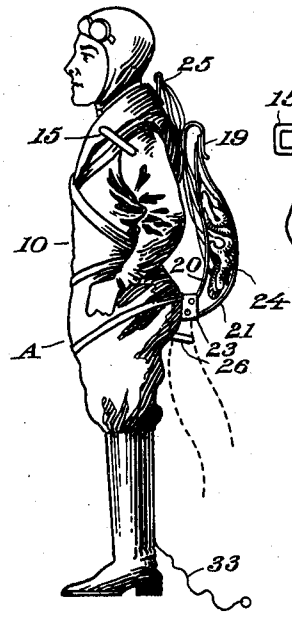


Fig. 2.

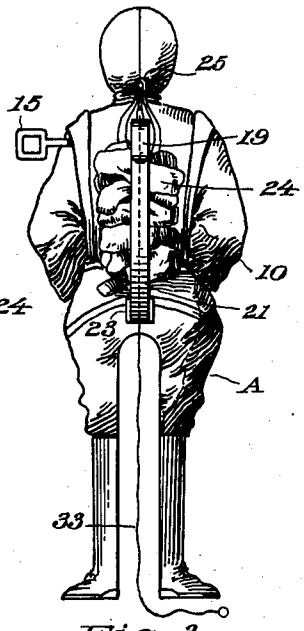


Fig. 3.



Fig. 1.

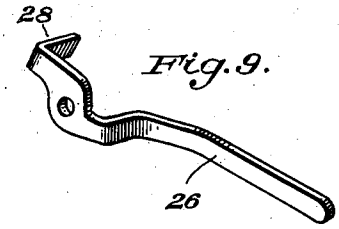
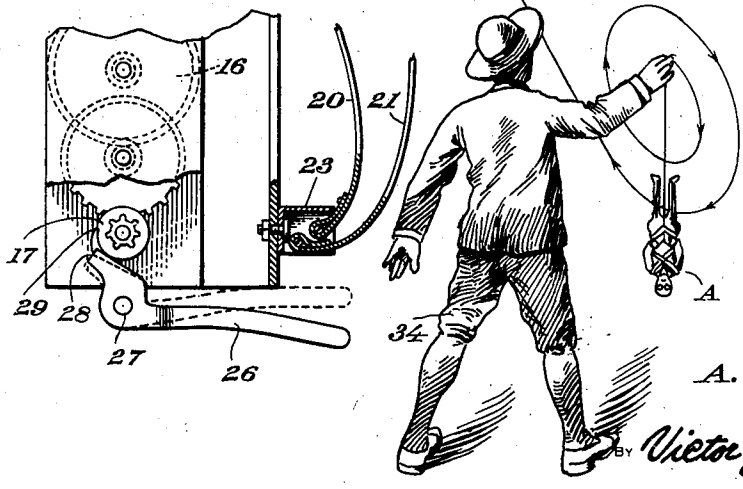


Fig. 9.

Fig. 8.



A. T. Quady:
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

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Fig. 4.

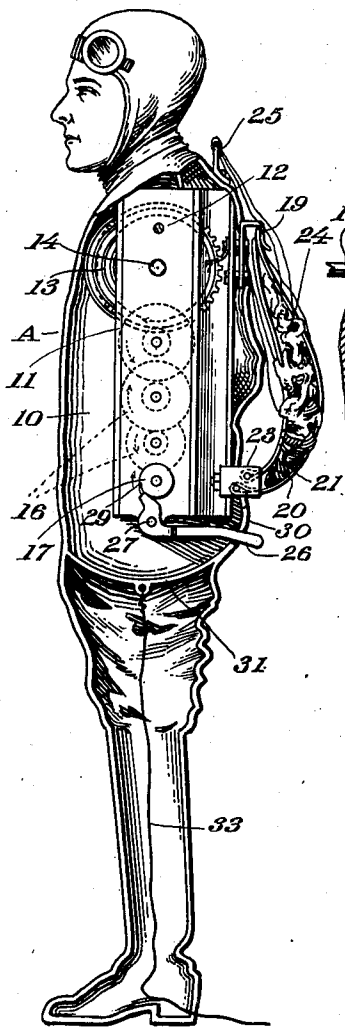


Fig. 5.

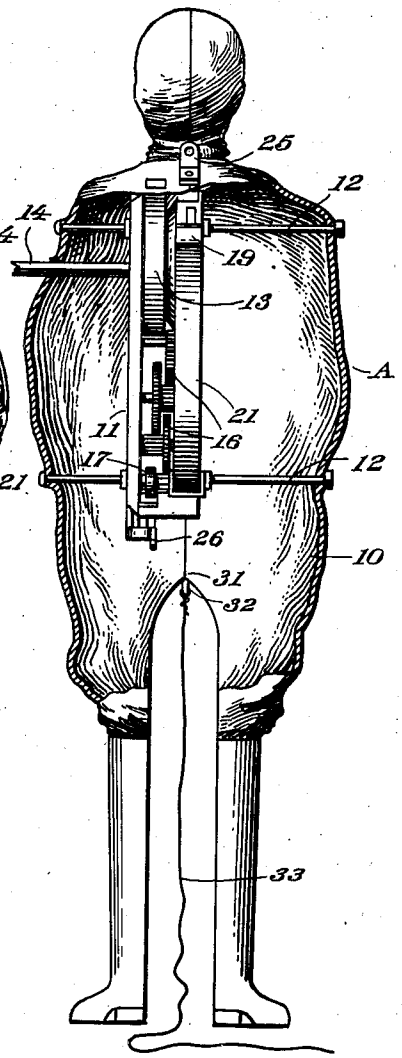


Fig. 6.

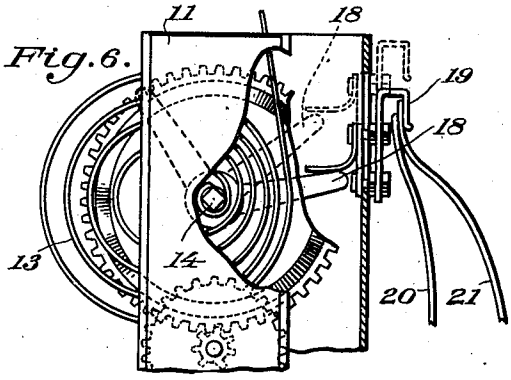
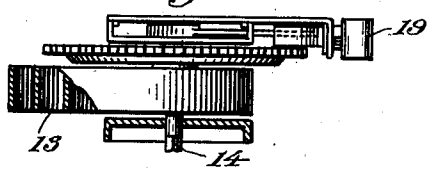


Fig. 7.



A. T. Quady INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

Patented Apr. 30, 1940 2,199,163

UNITED STATES PATENT OFFICE

2,199,163

TOY

Albert T. Quady, Great Falls, Mont.

Application April 5, 1939, Serial No. 266,171

3 Claims. (Cl. 46—86)

The invention relates to a toy and more especially to an aerial toy of the parachute type.

The primary object of the invention is the provision of a toy of this character, wherein the same is manually thrown in flight and the descent thereof is controlled by a parachute which is normally folded with relation to the toy and automatically opens when such toy has reached a determined height in flight and in this manner being most attractive and entertaining to children as it is imitative of a parachute jumper in reality.

Another object of the invention is the provision of a toy of this character, wherein the same is of a key-wound spring motor type for the automatic release of a folded parachute at a determined period after the toy is sent into the air by a person, the toy in its entirety being of novel construction.

A further object of the invention is the provision of a toy of this character, which is simple in construction, thoroughly reliable and efficient in operation, attractive in appearance, being imitative of a parachute operator, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a pictorial illustration indicative of the sending of the toy in flight and the descent thereof with its parachute in working condition, the arrow indications disclosing the courses, both ascent and descent movements of the toy.

Figure 2 is a side elevation of the toy in its normal condition.

Figure 3 is a rear elevation thereof.

Figure 4 is an enlarged fragmentary vertical longitudinal sectional view through the toy.

Figure 5 is a vertical transverse sectional view thereof.

Figure 6 is a fragmentary side elevation partly in section showing in detail the key-wound spring motor and adjuncts.

Figure 7 is a top plan view thereof partly in section.

Figure 8 is a view similar to Figure 6 showing the braking mechanism of the toy.

Figure 9 is a perspective view of the brake lever detached.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally the toy constructed in accordance with the invention and comprises a sectional hollow body 10 imitative of a parachute jumper or operator in reality and in attire. Within the body 10, that is to say, the body area proper thereof, is fixed a frame 11, being secured in place by tie bolts 12 suitably engaged in the said body 10. Within this frame 11 is a key-wound clock spring 13 functioning as a motor and its winding arbor 14 is constructed for the fitting of a winding key 15 separable therefrom and exposed without the body 10 for manual manipulation thereof, the spring 13 being active for the driving of a train of gears 16, these being arbored within the frame 11 and in the train is included a braking wheel 17. Actuated by the train of gearing 16 is a turnable tripping arm 18 for engaging a releasing hook 19, being slidably fitted to the frame 11.

At the rear of the body 10 is a pair of vertically swingable inherently resilient clamping jaws 20 and 21, respectively, these being pivoted at 22 in a bracket 23 therefor fixed to the frame 11 so that the jaws 20 and 21 will be outside of the body 10 at the rear of the image. These jaws 20 and 21 clamp therebetween a collapsible parachute 24 and when the latter is clamped it is in a folded condition. The jaws 20 and 21 when clamping the collapsed parachute 24 are engaged by the releasing hook 19 and said parachute 24 is anchored at 25 to the body exteriorly thereof at the shoulder area of the image.

Arranged to coact with the braking wheel 17 is a brake lever 26 pivoted at 27 so that its nose 28 can be swung into and out of the path of a keeper projection 29 on the wheel 17 and thus holding the train of gearing 16 inactive under the influence of the motor constituted by the spring 13. The lever 26 projects exteriorly of the body 10 through a clearance 30 therefor in a rear direction for manual control.

At the crest of the crotch formation 31 of the image is attached at 32 a flexible sending cord or the like 33, its free end being adapted to be grasped in the hand of a person denoted at 34 so that the toy can be sent in its flight, this being accomplished by whirling the said toy suspended by the cord or the like 33, as is clearly shown in Figure 1 of the drawings. When the arm 18 is in motion under activity of the motor, assuming

that the parachute 24 in its collapsed condition is clamped by the members 20 and 21 and the latter are latched by the hook 19, the said arm at a determined interval trips the hook 19, releasing the members 20 and 21, this taking place after the toy has been sent in its flight, being understood of course that the lever 26 has been operated for freeing the brake wheel 17. The train of gears 16 times the action of the arm 18 for tripping the releasing hook 19. When the members 20 and 21 swing to an open position or to a position for unclamping the parachute 24, the latter expands or opens for suspending the toy in its flight, slowing the descent thereof in gravity momentum so that the toy in the operation of the same, as before set forth, will lend amusement and attractiveness to a user thereof, being imitative of a parachute jumper in reality.

The lever 26 is manually controlled and when this lever brakes the wheel, should the spring be unwound, the same can be readily wound by the key 15 for motive power purposes.

What is claimed is:

1. A toy of the kind described comprising a body, inherently resilient clamping arms companions to each other swingingly connected to the body, a collapsible parachute anchored to the body exteriorly thereof and normally collapsed between the arms and clamped thereby, a latch on the body and engaging the arms for the holding of the same in clamping relation to the parachute, and timed mechanism interiorly of the body and having a trip for said latch arranged in the path thereof and automatically operating the same for release of the arms and the parachute therebetween.

2. A toy of the kind described comprising a body, inherently resilient clamping arms companions to each other swingingly connected to the body, a collapsible parachute anchored to the body exteriorly thereof and normally collapsed between the arms and clamped thereby, a latch on the body and engaging the arms for the holding of the same in clamping relation to the parachute, timed mechanism interiorly of the body and having a trip for said latch arranged in the path thereof and automatically operating the same for the release of the arms and the parachute therebetween, and a control mounted in the body and projected therethrough for holding the timed mechanism passive.

3. A toy of the kind described comprising a body, inherently resilient clamping arms companions to each other swingingly connected to the body, a collapsible parachute anchored to the body exteriorly thereof and normally collapsed between the arms and clamped thereby, a latch on the body and engaging the arms for the holding of the same in clamping relation to the parachute, timed mechanism interiorly of the body and having a trip for said latch arranged in the path thereof and automatically operating the same for the release of the arms and the parachute therebetween, a control mounted in the body and projected therethrough for holding the timed mechanism passive, and a hand-wound spring motor operating said mechanism.

ALBERT T. QUADY.