Nov. 19, 1946. W. WILLIAMS 2,411,490

TOY BLOWER

Filed Oct. 31, 1944

FIG. 1

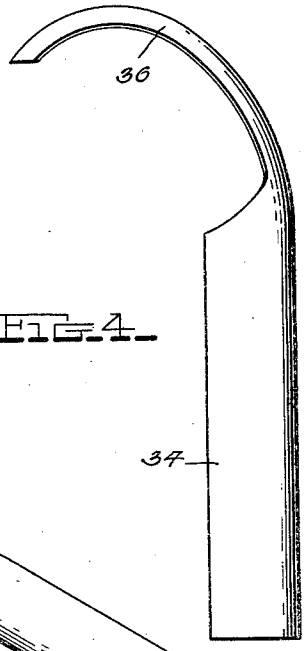


FIG. 4

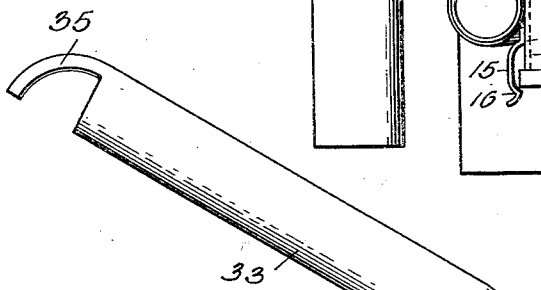
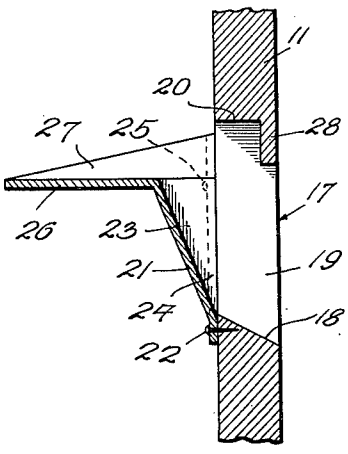


FIG. 3



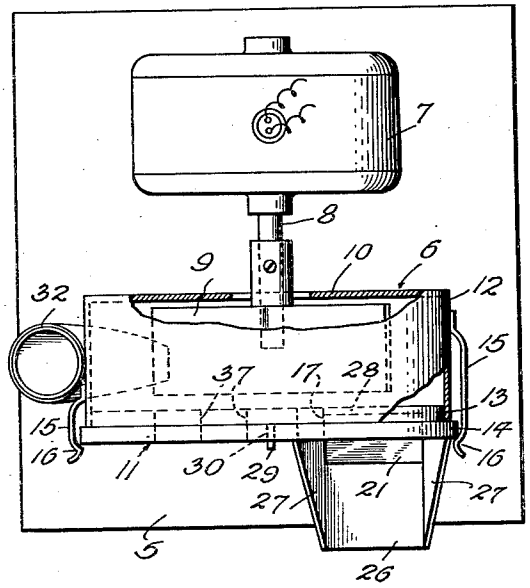
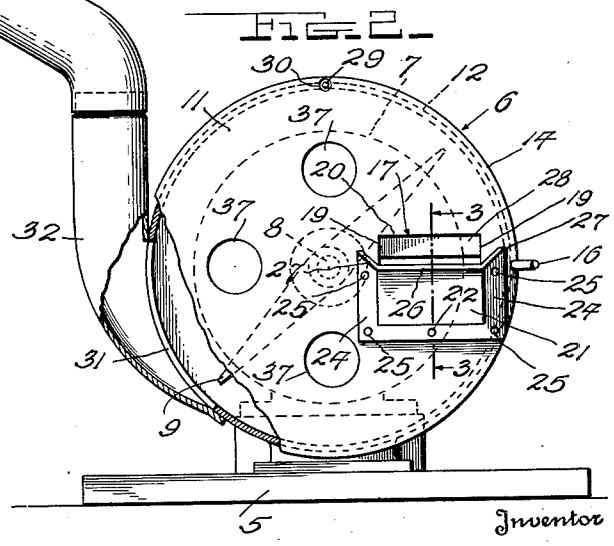


FIG. 2



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TOY BLOWER

Ward Williams, Brandon, Wis.

Application October 31, 1944, Serial No. 561,195

3 Claims. (Cl. 302—37)

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The invention aims to provide a simple, yet entertaining toy with which a child may pretend to be threshing grain, filling a silo, etc.

In carrying out the above end, a blower casing is provided containing a motor-driven fan, said casing having an inlet for chaff, dry bits of grass or paper, bran, or other loose material, and being provided with a discharge pipe through which the material will be blown to simulate the discharge from a threshing machine or that from a silo filling machine. As the chances are great that the child will endeavor to insert sticks and the like into the blower casing, a further object of the invention is to make novel provision whereby danger of injury to the toy will be minimized.

Another object is to provide a novel feed means including a horizontal plate or table from which the child feeds the loose material into the blower casing, with his fingers.

Figure 1 of the accompanying drawing is a top plan view partly broken away and in horizontal section.

Fig. 2 is a side elevation partly broken away and in section.

Fig. 3 is an enlarged detail vertical sectional view on line 3—3 of Fig. 2.

Fig. 4 is a side elevation of a different discharge pipe section which may be substituted for that shown in Fig. 2.

The general construction shown and described, may be considered as preferred, with the understanding, however, that variations may be made within the scope of the invention as claimed.

Upon a suitable horizontal base 5, a blower casing 6 and an electric motor 7 are fixedly mounted in axial alinement, the motor shaft 8 being provided with a fan 9 in said casing. One side wall 10 of the casing 6 is fixedly and permanently mounted while the other side wall 11 is readily removable. This side wall 11 fits within the peripheral wall 12 of the casing 6, as shown at 13 in Fig. 1, and is provided with a circumferential rib 14 which abuts the adjacent edge of said wall 12. It will be noted that the casing of the blower is of cylindrical shape, the peripheral wall 12 being a cylinder, the rear of which is closed by the circular wall 10 integrally secured to the wall 12. The front end of the peripheral wall 12 is closed by the front wall 11. Two spring arms 15 are secured to the outer side of the wall 12 and are provided at their free ends with substantially V-shaped detents 16 which yieldably engage the rib 14 so as to normally hold the casing wall 11 in place, yet to permit removal of this wall 11 by means of outward pressure exerted

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thereon. Thus, if the fan 9 crowds a stick or the like against the side wall 11, this wall will simply be forced off, minimizing danger of injury to the toy.

The casing wall 11 is formed with an inlet opening 17 having a straight lower edge 18 and straight vertical edges 19, and preferably a straight upper edge 20. Opposite the opening 17, at the outer side of the wall 11, is a steeply inclined plate 21, the lower end of which is suitably secured at 22 to said wall 11, at the edge 18 of said opening 17. The plate 21 diverges upwardly from the wall 11 and is provided with triangular side flanges 23 which are secured to the wall 11 along the vertical edges 19 of the opening 17. The inner edges of these flanges 23 may well be flanged at 24 to be fastened at 25 to the wall 11, to secure said flanges 23 to said wall. A horizontal plate or table 26 is secured to the upper end of the inclined plate 21 and projects outwardly therefrom, said plate or table 26 having upwardly diverging side flanges 27 which extend from its outer end to the wall 11, the inner portions of said flanges 27 being disposed at the upper ends of the aforesaid flanges 23. This structure provides for the support of loose material to be fed into the casing by the child, and he may readily push such material from the plate or table 26 into the chute formed by the plate 21 and its flanges 23, so that the material will be readily guided into the casing. The lower edge 18 of the opening 17, in this regard, is preferably transversely inclined as shown in Fig. 3. Also to prohibit the child from inserting his fingers through the upper portion of the opening 17, a barrier 28 may well project downwardly from the upper edge wall 20 of said opening.

The peripheral casing wall 12 is preferably provided with a laterally projecting stud 29 receivable in an opening 30 in the rib 14 of the wall 11, to properly position this wall and hold it against rotation.

An outlet opening 31 is formed in the casing wall 12 and communicates with a lower fixed pipe section 32 which is secured to said wall. An inclined pipe section 33 (Fig. 2), or a vertical pipe section 34 (Fig. 4), may be engaged with the section 32. Pipe section 33 is formed with a cowl 35 for so directing the material discharged through the pipe as to simulate the straw discharge from a threshing machine. Pipe section 34 has a cowl 36 which will downwardly direct the discharged material to simulate a silo filling operation.

From the foregoing taken in connection with

the accompanying drawing, it will be seen that novel and desirable provision has been made for carrying out the objects of the invention. Chaff or any other loose material fed into the casing will be discharged through the delivery pipe in a manner to simulate the discharge from a large machine and will be very pleasing to children. If the child endeavors to insert a stick or the like, it may be struck by the fan and immediately ejected, but if it should be crowded forcibly against the wall 11 by said fan, this wall will simply be forced off and no injury to the toy will be caused. This wall is also readily removable to permit cleaning of any accumulated matter from the interior of the casing 6.

It is preferable to provide the wall 11 with air inlet openings 37 for admitting more air to the casing than that which can enter through the opening 17 which may be more or less filled at times with the material being fed into the toy.

Attention is again invited to the possibility of making variations within the scope of the invention as claimed.

I claim:

1. A toy comprising a base, a substantially cylindrical blower casing mounted on said base and comprising an upright back wall and a peripheral wall projecting therefrom and formed with an outlet, a discharge pipe extending from said outlet, a bladed centrifugal fan in said casing having its axis concentric with an opening in said back wall, means for supporting and rotating said fan, a readily removable front wall for said casing having a peripheral portion to engage and seat on the entire front edge of said peripheral wall of the casing, said front wall having an inlet positioned to one side of the axis of rotation of said fan, a feed chute secured to said front wall and communicating with said inlet, and yieldable spring catches normally holding said front wall on said peripheral wall, said catches being yieldable to release said front wall by excessive outward pressure upon it, whereby a stick or the like inserted through said inlet and crowded by said fan against said removable front wall, may force it off of said peripheral wall instead of causing damage.

2. A toy comprising a substantially cylindrical blower casing having a peripheral wall formed with an outlet, said casing including a fixed side wall rigidly secured to said peripheral wall and a readily removable side wall provided with an inlet to one side of its center and having its peripheral portion seated on one edge of said peripheral wall, a rotary fan in said casing having blades to move past and close to said inlet, and yieldable means normally securing said removable side wall in place, said yieldable means being releasable by outward pressure on said removable side wall, whereby a stick or the like inserted through said inlet and crowed by said fan against said removable side wall, may force this wall off instead of causing damage.

3. A toy comprising a base, a blower casing mounted thereon and comprising a cylindrical wall forming the periphery of the casing and provided with an outlet, an apertured rear wall secured to one edge of said peripheral wall and a readily removable front wall to telescope within the other edge of said peripheral wall and formed with a circumferential rib abutting said other edge, said rib having an opening, a positioning stud on said peripheral wall to enter said opening, said front wall having an inlet to one side of its center, an inclined feeding chute secured to said front wall at its inlet and formed with a horizontal feeding table at its upper front edge, the top of said table being positioned in a plane below the top of said inlet, a downwardly projecting barrier in the top of said inlet terminating adjacent to the plane of said table, a centrifugal fan in said casing having its axis concentric with the aperture in said rear wall and provided with blades to rotate past and close to said inlet, means for supporting and rotating said fan, and yieldable catch springs secured at one end to said peripheral wall and having their other ends formed with V-shaped detents to yieldably engage said rib to releasably hold said front wall of the casing.

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