

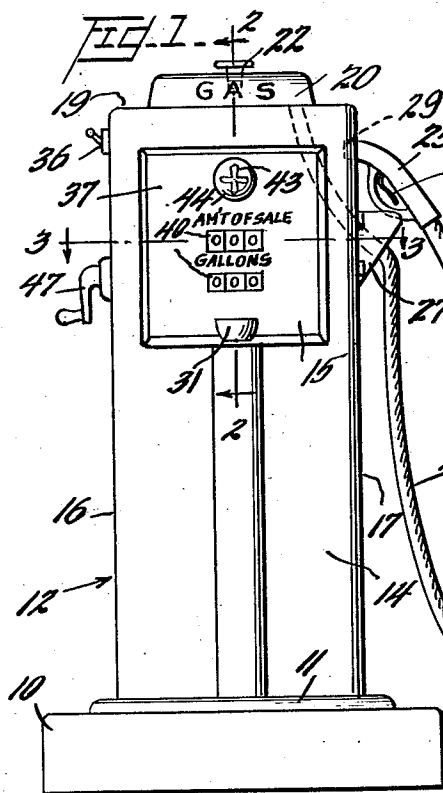
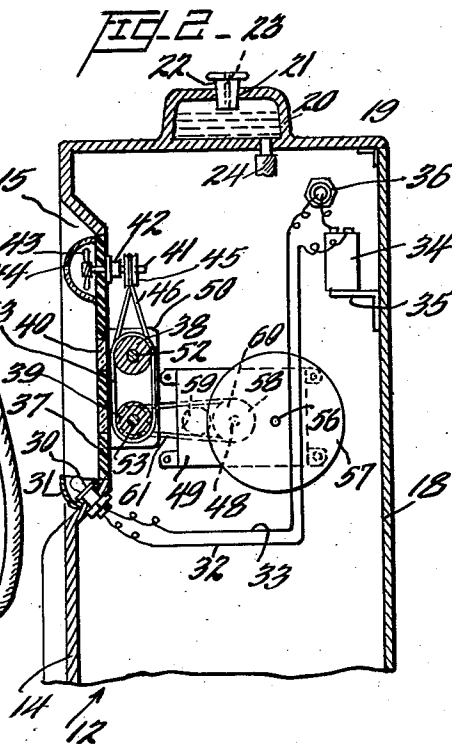
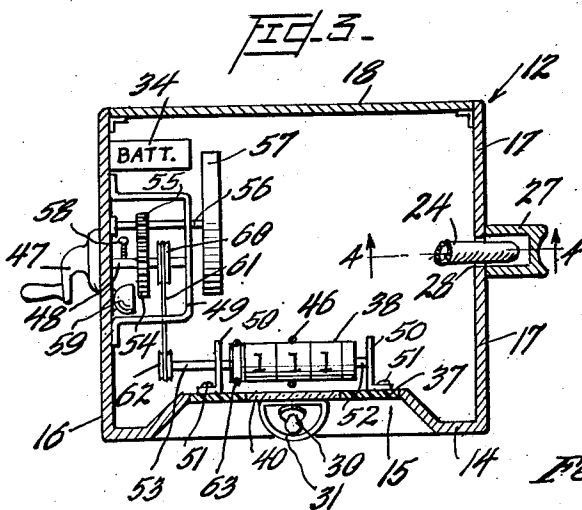
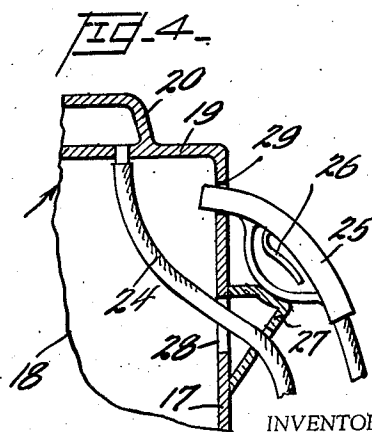
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TOY FUEL PUMP

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This invention relates to a toy, and more particularly to a toy fuel pump.

The object of the invention is to provide a toy fuel pump which will simulate a real fuel pump to thereby provide a source of amusement and recreation to the user.

Another object of the invention is to provide a toy fuel pump which is constructed so that it will simulate all of the characteristics of a real fuel pump, and wherein the fuel pump can be constructed of any suitable material and of any desired size such as for example of a size to accommodate sidewalk pedal vehicles.

Another object of the invention is to provide a toy fuel pump which includes a fluid holding reservoir for holding a fluid such as water whereby the fluid can be discharged by gravity through a manually controlled nozzle, there being a plurality of rollers in the toy having indicia or legends thereon to simulate the meters or registers on a real fuel pump.

A still further object of the invention is to provide a toy gas filling pump which has the same appearance as an operative fuel pump in use at vehicle service stations, there being a light adapted to be connected to a suitable source of electrical energy for illuminating the fuel pump and wherein the user of the toy can perform the various operations which ordinarily take place in dispensing fuel such as motor fuel from a full size fuel pump.

A further object of the invention is to provide a toy fuel pump which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

Figure 1 is a front elevational view of the toy fuel pump, constructed according to the present invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Referring in detail to the drawings, the numeral 10 designates a base, which may have decorative trim 11 thereon, Figure 1, and mounted on the base 10 and secured thereto in any suitable manner is a hollow housing 12. The housing 12 includes a front wall 14 that is provided with an inwardly recessed section 15, and the recessed section 15 is arranged adjacent the upper end of the front wall 14. The housing 12 further includes a pair of spaced parallel vertically disposed side walls 16 and 17, and a vertically disposed rear wall 18. Mounted on the upper end of the housing 12 is a top wall 19.

Formed integral with the top wall 19 or secured thereto is a compartment or fluid holding reservoir 20 that is adapted to hold a suitable quantity of fluid such as water therein. The reservoir 20 is provided with a filling open-

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ing 21 in its upper end, and a plug 22 is provided for closing the opening 21. The plug 22 may be provided with an air vent 23 so as to facilitate passage or flow of fluid from the reservoir 20. Communicating with the reservoir 20 is a hose or flexible conduit 24, and the hose 24 projects through an opening 28 in a side wall of the housing, Figure 4. A nozzle 25 is connected to the other end of the hose 24, and a manually operable trigger valve 26 is provided for controlling the flow of water through the nozzle 25. Thus, by manually depressing the valve 26, water will flow by gravity from the reservoir 20 through the hose 24 and out through the nozzle 25. When the hose is not being used, the nozzle 25 may be supported on a bracket 27 which can be secured to or formed integral with the side wall 17 of the housing, as shown in Figure 4. A suitable opening 29 may be arranged in the side wall 17 for receiving the projecting upper end of the nozzle 25 when the nozzle is being supported on the bracket 27. Of course the nozzle 25 can be readily removed from the bracket 27 when fluid is to be dispensed therethrough.

Positioned below the recessed section 15 of the front wall 14 and arranged exteriorly of the housing, is a light 30. A suitable reflector 31 surrounds the light 30, and wires 32 and 33 connect the light 30 to a battery 34 and manually operable switch 36. The battery 34 can be supported in the housing 12 on a suitable shelf 35. Thus, by actuating the switch 36, the light 30 can be illuminated to thereby increase or enhance the attractiveness of the toy. The word "Gas" may be imprinted or arranged on the outside of the reservoir 20 as shown in Figure 1, and suitable indicia indicating the "Amount of Sale" and "Gallons" may be arranged on the outside or outer surface of the plate 37 that is arranged in the recessed portion of the front wall 14.

Positioned within the housing 12 is an upper and lower roller 38 and 39, and each of these rollers may have suitable indicia or legends thereon to simulate the amount of the sale and the gallons of fuel or fluid dispensed. The plate 37 may be provided with a pair of transparent inserts 40 that may be made of any suitable material such as glass or plastic, and the transparent inserts 40 permit the user to visually or readily observe the indicia on the rotating rollers 38 and 39.

Projecting through the plate 37 is a stub shaft 41, there being a bushing 42 for receiving the stub shaft 41, Figure 2. A propeller 43 is mounted on the outer end of the shaft 41, and the propeller 43 is surrounded by a plastic or transparent bubble or casing 44. Mounted on the inner end of the shaft 41 is a pulley 45 which has an endless belt 46 trained thereover, and the belt 46 is also trained over the uppermost roller 38. Thus, as the rollers rotate, the shaft 41 will be rotated to thereby rotate the propeller 43 within the bubble 44 to thus simulate the action of the propeller on a full size fuel pump.

Supported by the side wall 16 of the housing 12 is a crank 47 which may be manually operated, and the crank 47 includes a shank or shaft portion 48 which projects into a bearing bracket 49 that is secured to the inner surface of the side wall 16. A pair of bearing plates 50 are secured to the inner surface of the plate 37 in any suitable manner, as for example by means of bolts or screws 51. The bearing plates 50 have a pair of shafts 52 and 53 journaled therein. The shaft 52 has the roller 38 mounted thereon, while the lower shaft 53 has the lower roller 39 mounted thereon.

Secured to the shank 48 of the crank 47 is a gear wheel 54 which meshes with a gear member 55 that is secured to a drive shaft 56. A flywheel 57 may be mounted on the inner end of the shaft 56 so that as the crank 47 is rotated the flywheel 57 will rotate therewith. A bell clapper 58 is secured to the shank 48 of the crank, and

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the bell clapper 58 is mounted for movement into and out of engagement with a bell or sounding member 59. Thus, as the crank 47 rotates the clapper 58 will periodically strike the bell 59 to thus produce a sound simulating a bell on a full size fuel pump.

Mounted on the shank 48 of the crank is a pulley 60, and trained over the pulley 60 is an endless belt 61, the belt 61 being also trained over a pulley 62 on an end of the lower shaft 53. A belt and pulley means including an endless belt and a pair of pulleys serves to interconnect the shafts 52 and 53 together. Thus, upon rotation of the crank 47, the pulley 60 will be rotated to thereby cause rotation of the pulley 62 through the medium of the belt 61. This in turn will cause rotation of the shaft 53 and due to the provision of the belt and pulley means 63, the pair of rollers 38 and 39 will rotate to thus simulate the meters on a full size fuel pump that indicate the "Amount of Sale" and "Gallons" being dispensed or pumped.

From the foregoing it is apparent that there has been provided a toy fuel pump which will simulate a full size operative fuel pump such as those found at automobile filling stations. In use the reservoir 20 can be filled with a suitable fluid such as water through the opening 21. Then, when the fluid is to be dispensed, the nozzle 25 is lifted from the bracket 27 and then the trigger 26 is squeezed whereby water will flow by gravity from the reservoir 20 through the hose 24 and out through the nozzle 25. Also, the child or other person can rotate the crank 47 to thereby cause rotation of the rollers 38 and 39 through the medium of the previously described belt and pulley means. These rotating rollers have indicia thereon which appears through the transparent inserts 40 so that there will appear a representation of the "Amount of Sale" and "Gallons" being dispensed. While the crank 47 is being rotated, the clapper 58 will strike the bell 59 to produce a sound similar to the sound produced when fuel is being pumped.

The toy of the present invention is ruggedly constructed. The rotation of the propeller 43 can be observed through the clear plastic bubble 44. The light switch 36 operates the light 30 and the reflector 31 causes the rays to light up the face of the fuel pump for night service. The air vent 23 in the plug 22 facilitates the flow of fuel or water since it prevents the formation of a vacuum in the reservoir tank 20. Instead of operating the crank 47 manually, it can be driven by a suitable motor which may be spring wound, electrically driven, or a rubber band type of motor.

In actual use of the toy fuel pump, no continued turning of the crank 47 is necessary since the flywheel or inertia element 57 forms a motor which operates the

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device for a nominal period of time. Thus, this flywheel, when set in motion, takes the place of a spring wound motor.

It is to be understood that changes in the present invention may be made without departing from the spirit of the invention as defined by the following claims.

I claim:

1. A toy fuel pump comprising a base, a hollow housing mounted on said base and including spaced parallel vertically disposed side walls, a vertically disposed rear wall and a vertically disposed front wall, a fluid holding reservoir mounted on top of said housing and provided with a filling opening, a plug for closing said opening provided with an air vent, a hose having one end connected to said reservoir, a manually operable nozzle connected to the other end of said hose, a bracket secured to one of said side walls for supporting said nozzle, said front wall including an inwardly recessed portion adjacent its upper end, a pair of bearing plates secured to the inner surface of said front wall, a first and second superimposed shafts journaled between said bearing plates, a roller mounted on each of said shafts and having indicia thereon, portions of said front wall being transparent for observing the indicia on said rollers, belt and pulley means connecting said rollers together, a stub shaft projecting through the recessed portion of said front wall, a propeller mounted on said stub shaft, a pulley connected to the inner end of said stub shaft, a belt trained over said pulley and over the uppermost of said rollers, a bearing bracket arranged in said housing and secured to one of said side walls, a crank supported by a side wall of said housing and having a shank projecting into said bearing bracket, a bell mounted in said housing, a bell clapper mounted on said shank and mounted for movement into and out of engagement with said bell, and belt and pulley means connecting said shank to the shaft supporting the lowermost roller.

2. The apparatus as described in claim 1, and further including a light positioned exteriorly of said housing below said rollers, and a source of electrical energy in said housing connected to said light.

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