E. P. BODIN.

TOY.

APPLICATION FILED NOV. 27, 1918.

1,340,109.

Patented May 11, 1920.

3 SHEETS—SHEET 1.

Fig. 1.

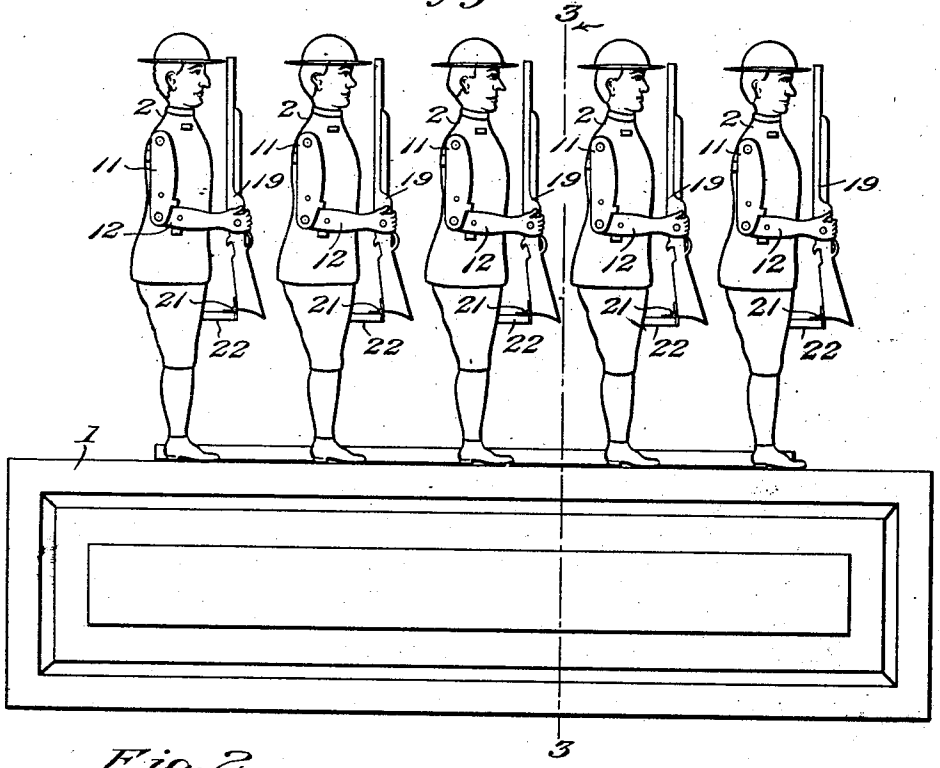
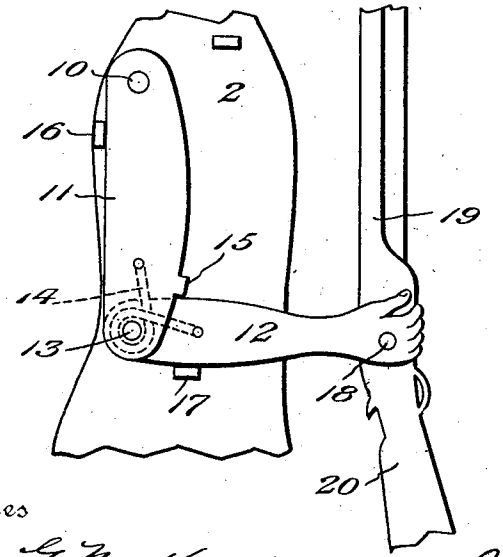


Fig. 2.



Witnesses

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3 SHEETS—SHEET 2.

Fig. 3.

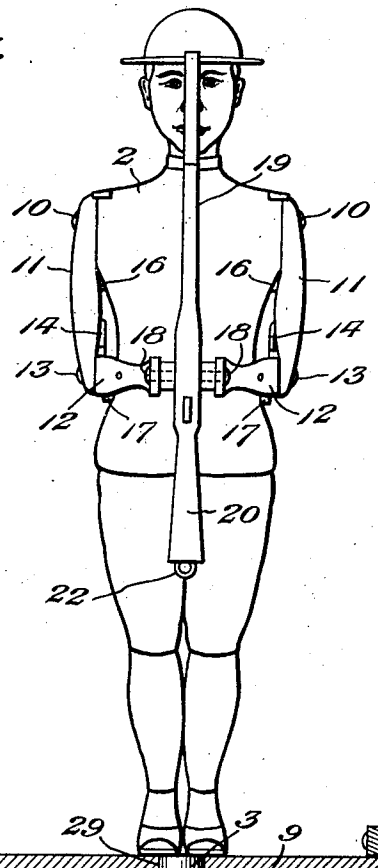
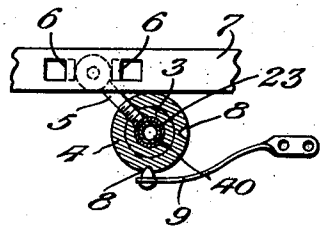
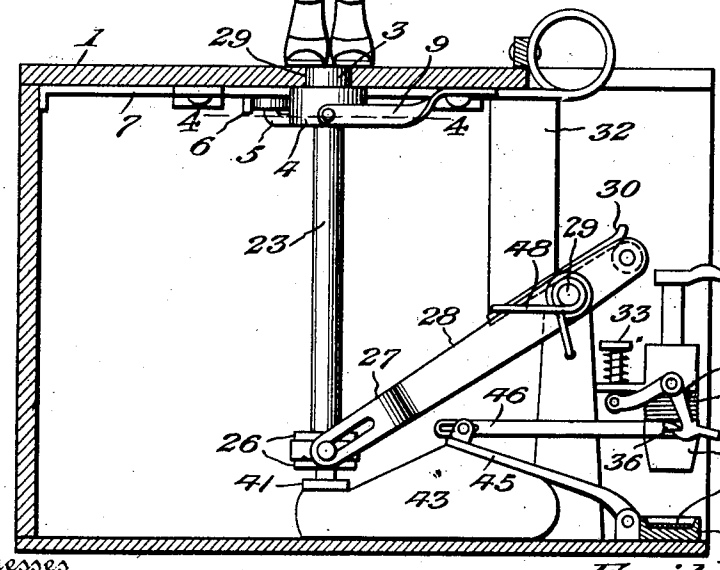


Fig. 4.





Witnesses

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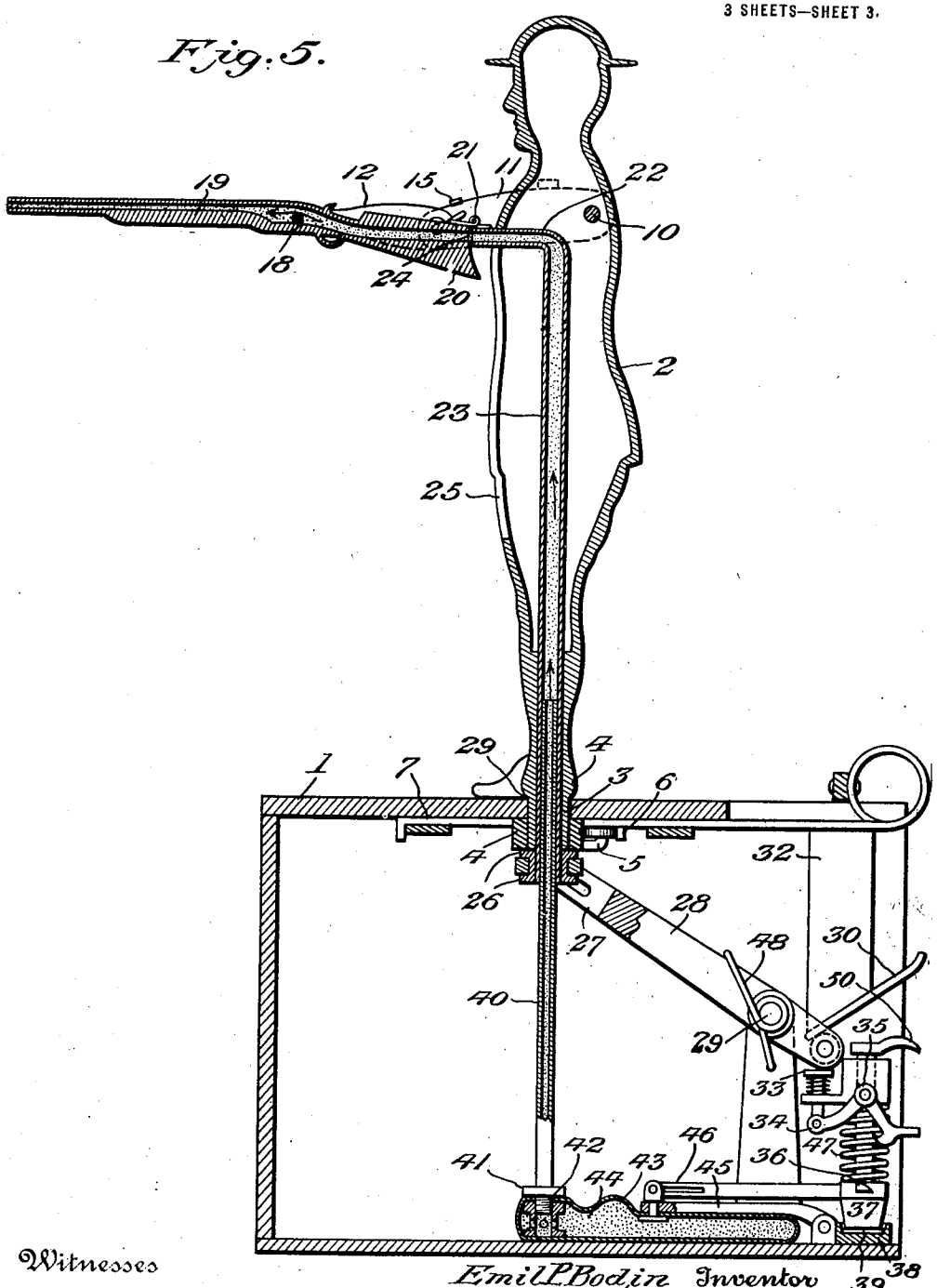
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3 SHEETS—SHEET 3.

Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

EMIL P. BODIN, OF NEW YORK, N. Y.

TOY.

1,340,109. Specification of Letters Patent. Patented May 11, 1920.

Application filed November 27, 1918. Serial No. 264,473.

To all whom it may concern:

Be it known that I, EMIL P. BODIN, a citizen of the United States, residing in New York, in the county of New York and State of New York, have invented new and useful Improvements in Toys, of which the following is a specification.

This invention relates to a toy.

An object of the invention is to produce a toy comprising a number of figures representing soldiers and to provide means whereby said figures will be operated to simulate drilling maneuvers.

A further object of the invention is to produce a toy including a number of figures representing soldiers each provided with a gun normally held in one position, to provide means whereby the figures will be turned, thereafter raise the gun to firing position, and when in such position to explode a cap or otherwise create a noise similar to the firing of the gun, and at the same time cause powder to be ejected through the barrel of the gun, to represent smoke and gases caused by the explosion of the charge of the gun.

It is a further object of the invention to produce a toy of this character which may be constructed in a comparatively easy manner, and which may be placed upon the market at a moderate selling price.

The invention further resides in the construction, combination and operative arrangement of parts set forth in the following description and falling within the scope of what is claimed.

In the drawings:

Figure 1 is an elevation of a toy constructed in accordance with this invention;

Fig. 2 is an enlarged side elevation of one of the figures employed, parts being broken away.

Fig. 3 is an enlarged sectional view approximately on the line 3—3 of Fig. 1.

Fig. 4 is a detail sectional view approximately on the line 4—4 of Fig. 3, looking in the direction of the arrows.

Fig. 5 is a central vertical sectional view through one of the figures, illustrating the arrangement of parts when the slide has been actuated to revolve or turn the figures to bring the gun barrel to aiming position, and eject powder through the gun barrel and detonate a cap.

Referring now to the drawings in detail, the numeral 1 designates a suitable hollow substantially rectangular base. On this base is mounted any desired number of figures 2. These figures are arranged in longitudinal alinement and are shaped to represent soldiers. Each of the figures 2 preferably comprises a hollow body and has its lower portion formed with a tubular extension 3 that passes through suitable openings in the top of the base 1. The tube is provided with flanges or collars 4 which contacting with the opposite surfaces of the top of the base hold the tube and figures thereon in a vertical position with respect to the base. Each of the tubular members, at the portion thereof received in the base 1 is provided with right angularly arranged outstanding fingers 5 which are arranged within the path of movement with spaced lugs 6 provided upon a slidable bar 7. It will be apparent that by moving the slide longitudinally in opposite directions the lugs 6 will simultaneously contact with the respective fingers 5 of the tubes supporting the figures 2, and consequently cause the said figures to rotate or turn on the base. Preferably, and as illustrated by the drawings, the tubes 3 are provided with spaced indentures 8 that are engaged by substantially V-shaped heads formed on spring members that are secured to the base in any desired or preferred manner. These spring members or dogs 9 are so arranged as to hold the figures against turning after the fingers have been contacted by the lugs 6, so that the figures are held stationary until operated by the said cams on the slide.

Each of the figures 2 has pivotally secured thereto, as at 10 an arm comprising two sections indicated by the numerals 11 and 12 respectively, a pivot 13 connecting the sections. Around the pivot is coiled a light spring 14 that has one of its ends connected to the section 11 and its other end connected to the section 12 of the arm. This spring is designed to force the lower or outer arm 12 in contact with a flange 15 formed on the

outer edge of the upper section 11 of the arm, and consequently hold the section 12 at an angle with respect to the section 11. The section 11 is held against rearward movement with respect to the figure on which it is pivoted by contact with the lug 16 formed on the said figure, and the sections of the arm are designed to be retained in horizontal alinement (when actuated to such position by means to be hereinafter described), by contact with the lug 17 also formed on the figure 2.

To the outer or lower arm section 12 of each of the figures 2 is pivotally secured, as at 18 a barrel 19 representing a small arm in the nature of a gun or rifle. The barrel 19 has its stock representing end 20 hingedly secured, as at 21 to an offset nozzle member 22 formed on a vertically disposed pipe 23. The mouth of the nozzle has arranged thereon a compressible gasket 24 to insure a tight joint between the nozzle and the barrel 19, when the pipe member 23 has been elevated to swing the barrel 19 to a horizontal position and to likewise swing the sections comprising the arm in alining horizontal position, in a manner which will hereinafter be fully described. The figure representing the soldier is, as previously stated, hollow and as the pipe 23 is arranged centrally therein the said figure is provided with an elongated slot 25 through which the end of the nozzle 22 projects.

The pipe 23 extends into the base 1 through the tube 3, projecting a suitable distance downwardly below the said tube. On each of the pipes 23, inward of the base is a pair of spaced collars 26. Between each pair of collars is received the bifurcated end 27 of a lever 28. Each of the levers is approximately centrally pivoted as at 29, to a suitable support in the base 1. Each of the levers is disposed in the path of contact with a cam member 30 provided on the slide 7. The cam members 30 are arranged on the lower angle ends of plates 32 that depend from the slide 7. The cam members 30 are arranged each a suitable distance to one side or end of the respective lugs 6, so that the lug 6 will first actuate to turn the figures before the cams 30 contact with the levers 28 to swing the same upon their pivots 29 to elevate the pipe members 23, and such movement of the pipe members causes the barrel 19 to be swung to a horizontal position, the sections comprising the arms to be brought into horizontal alinement and a connection to be made between the nozzle 22 and the barrel 19.

The outer end of each of the levers 28 is disposed in the path of contact with spring influenced outwardly projected pins 33, each of the said pins being arranged in contacting relation with an offset finger 34 on a pivoted dog or catch 35. Each of the catch members normally engages with an offset lip 36 on a spring influenced hammer 37. The springs influence the hammers in a downward direction toward anvils 38, and each of the anvils is designed to receive an explosive cap 39.

The pipe 23 is telescoped over a second pipe 40. Each of the pipes 40 has its lower end flanged as at 41 and is received in the mouth 42 of a compressible member in the nature of a sack 43. The mouth of the sack is, of course, secured to the pipe section 40, and each of the sacks is designed to receive therein a powder 44. The sacks may be secured to the lower wall of the base 1, and the outer portions thereof are preferably contacted by a loosely hinged plate 45 that is secured to the bottom plate of the base 1. The hinged contact plate 45 is engaged by an arm 46 that is secured to the hammer 37.

The actuation of the parts is so timed that the figures are first turned. The lever 28 is then operated to elevate the pipe 23 to bring the barrels 19 to horizontal position and in connection with the nozzles 22 of the said pipe 23. Thereafter the levers 28 being still further engaged by the cam members 30 have their outer ends swung still farther in a downward direction, contacting with the respective pins 33 swinging the dogs 34 to release the hammers 37, permitting the springs 47 for the said hammers to force the same in the direction of the anvils 38, thus exploding the caps 39 and causing the arms 46 to influence the members 45 to depress or collapse the bags or sacks 43 to eject the powder therefrom through the pipe sections 40 and 23, nozzles 22 and through the barrels 19.

The weight of the gun, pivotally connected arm sections, pipe 23 and nozzle therefor may be sufficient to return these parts to their initial position, but if necessary a spring 48 may influence the pipe 23 in a downward direction, so that the gun is normally held by the figure at a "present arm" position. The catch 35 may be provided with a finger piece 49, and the hammer 37 may be likewise provided with a finger piece 50 so that these elements may be manually arranged in a convenient manner to engage one with the other to hold the hammer out of contact with the detonating element 39 on the anvil 38. The gun or barrel when in its normal vertical position is at "present arms", and the downward movement thereof from the horizontal or firing position may be limited by a suitable stop, by the contact of the nozzle with the lower end of the slot in the figure, or by the contact of the gun with the figure. The tube at the lower end of the figures which find bearings in the base are in the nature of shafts, as will be, of course, understood.

Having thus described the invention, what is claimed as new is:—

1. In a toy of the class described, figures mounted on shafts, right angularly disposed fingers on said shafts, said shafts having spaced indentures, spring members having headed ends engaging in said indentures, a slide having spaced depending lugs thereon disposed in the path of contact with said fingers and designed to engage with the respective fingers when the said slide is reciprocated.

2. In a toy of the class described, figures mounted on shafts, right angularly disposed fingers on said shafts, spring means engaging said shafts for normally holding the same against turning, a slide, lugs on said slide arranged in the path of contact with said fingers and designed to engage said fingers when the slide is moved longitudinally.

3. In a toy, a figure representing a soldier carrying a gun which is normally in a vertical position at "present arms", slidable means connected with the gun and actuated a distance from the figure for swinging the gun to a horizontal or firing position, and detonating means and powder ejecting means operated by said first mentioned means after the gun has been brought to firing position.

4. In a toy, a figure, a gun barrel carried thereby, means for revolving the figure a predetermined distance, latching means for holding the figure in such position, means for swinging the gun to a horizontal position, a detonator and a compressible powder container, and means associated with said operating means for exploding the detonator and for compressing the container to eject a quantity of power therefrom after the gun has been brought to said horizontal position.

5. In a toy, a figure, a gun barrel carried thereby, a pipe having a nozzle hingedly secured to one end of the barrel, a compressible powder container connected to the pipe, means for revolving the figure, means for holding the figure against turning when the revolving means therefor has been actuated, means for elevating the pipe to swing the barrel to registering association with the nozzle, and means for compressing the powder container to eject a quantity of powder therefrom through the pipe and barrel.

6. In a toy, a figure, a gun barrel carried thereby, a pipe having a nozzle hingedly secured to the barrel, a compressible gasket at the mouth of the nozzle, a compressible powder container, a pipe member secured thereon and telescopically received in the first mentioned pipe, means for revolving the figure a predetermined degree, means for latching the figure in such position, means for raising the first mentioned pipe to swing the barrel to registering association with the nozzle, and means for compressing the powder container to eject a quantity of powder therefrom through the pipe and barrel when the said barrel is in its horizontal position.

7. In a toy, a figure having a pivotally connected sectional arm thereon, means for retaining the sections of the arm in one position, a pivoted gun barrel carried by the outer section of the arm, a pipe having an offset nozzle hingedly secured to the barrel, a compressible powder container connected with the pipe, means for turning the figure a predetermined distance, latching means for holding the figure at such position, means for elevating the pipe to swing the barrel and arm to a horizontal position with respect to the figure and for bringing the nozzle of the pipe in registering association with the barrel, and means for compressing the powder container to eject a quantity of powder therefrom through the pipe and barrel after the said barrel has been brought to said horizontal position.

8. In a toy, a figure mounted on a hollow shaft, angle fingers on said shaft, a gun carried by said figure and normally retained in a position at "present arms," a pipe slidable through the shaft having an offset outer end providing a nozzle which is hingedly connected to the barrel, a pivoted lever loosely connected with the pipe, a compressible powder container, a pipe member secured in the mouth thereof and telescopically received in the first mentioned pipe, detonating means, and a slide having offset spaced lugs designed, when actuated to contact with the fingers of the shaft to revolve the figure, a cam on said slide designed, when the slide is moved to revolve the figures to contact with the lever to swing the latter to elevate the pipe to bring the gun to firing position and the nozzle of the pipe in registering engagement with the barrel of the gun, and thereafter to actuate the detonating means and to compress the powder container to eject therefrom a predetermined quantity of powder through the pipe and the barrel of the gun.

9. In a toy, a base, a figure representing a soldier thereon, a hollow shaft therefor journaled on said base, angle fingers on said shaft, a gun carried by the figure, a pipe slidable through the shaft having an offset outer end which is hingedly connected to the end of the gun barrel, spaced collars on said pipe, a pivoted lever having a bifurcated end received between said collars, a compressible powder container, a pipe member communicating therewith and telescopically received in the first mentioned pipe, a loosely hinged plate overlying the powder container, an anvil designed to receive a detonator cap thereon, a spring influenced hammer for exploding the cap, a dog normally holding the said hammer in raised

position, a connecting arm between the hammer and the hinged plate, a spring pressed pin normally contacting with the dog, a reciprocatory slide means on said slide designed to contact with the fingers on the shaft to revolve the figure and means on said slide designed to contact with the lever to swing the same to elevate the pipe and swing the gun to firing position and to connect the nozzle with a barrel thereof, and thereafter to bring said lever into contact with the spring pin to release the dog and permit the hammer contacting with the detonator and the arm of the hammer to influence the hinged plate to compress the powder container and eject a quantity of powder therefrom through the pipes and through the gun barrel.

In testimony whereof I affix my signature.

EMIL P. BODIN.