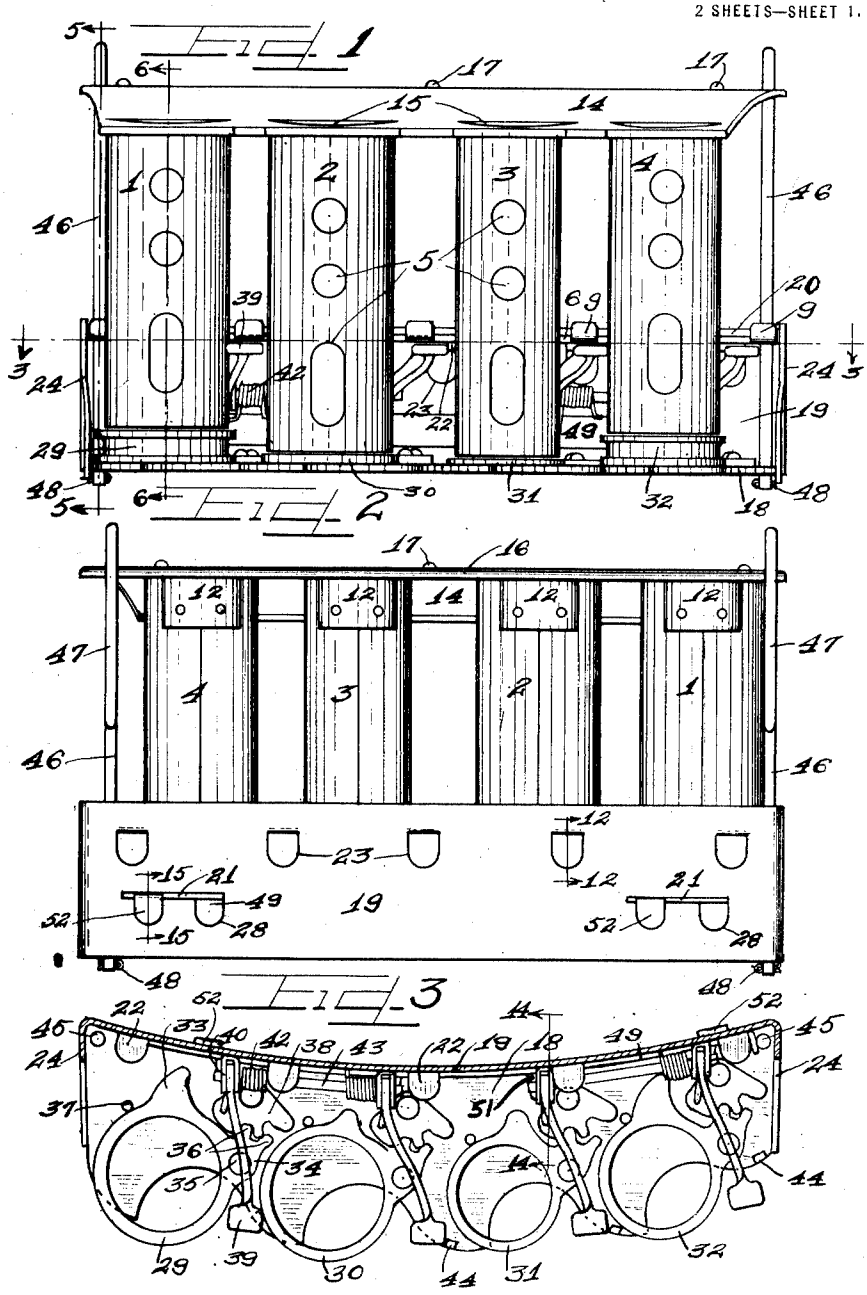
M. C. BRUHN AND G. F. McGILL.

CHANGE MAKER.

APPLICATION FILED JULY 31, 1918.

1,385,360. **Patented July 26, 1921.**

2 SHEETS—SHEET 1.



Witnesses

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By

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2 SHEETS—SHEET 2.

Fig. 4

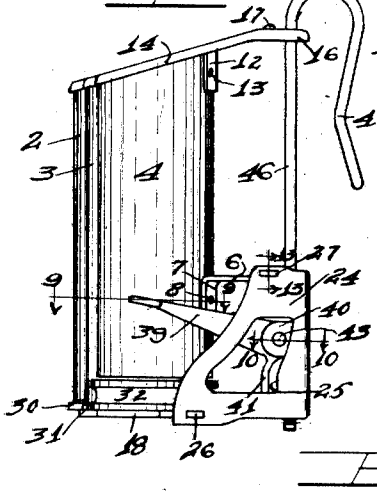


Fig. 5

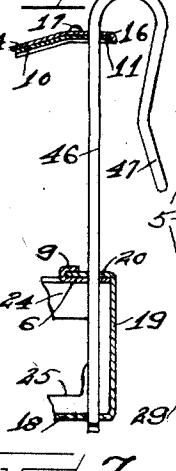


Fig. 6

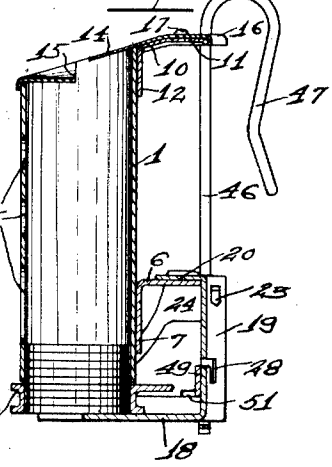


Fig. 7

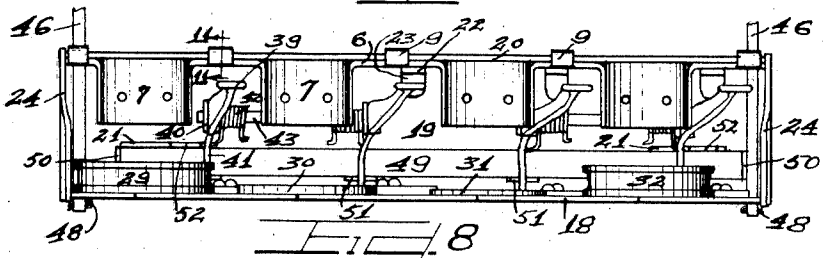


Fig. 8



Fig. 9

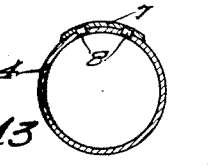


Fig. 10

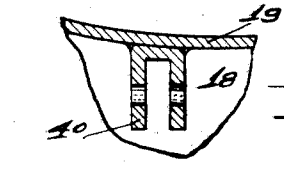


Fig. 12

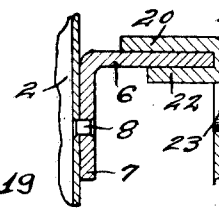


Fig. 13

Fig. 11

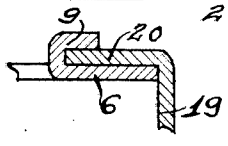


Fig. 14

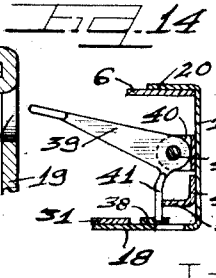
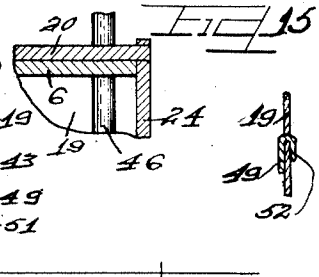


Fig. 15



Witnesses

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UNITED STATES PATENT OFFICE.

MAX C. BRUHN AND GEORGE F. McGILL, OF CHICAGO, ILLINOIS.

CHANGE-MAKER.

1,385,360. Specification of Letters Patent. Patented July 26, 1921.

Application filed July 31, 1918. Serial No. 247,550.

To all whom it may concern:

Be it known that we, MAX C. BRUHN and GEORGE F. McGILL, citizens of the United States, and residents of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Change-Makers; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to improvements in a portable type of change maker adapted to be worn by a person receiving coins and required to make change. The change maker covering this invention is constructed of removably connected sections adapted to permit the change maker to be readily taken apart for cleaning or repairs and conveniently assembled again in a comparatively short time to afford a ready means for making change by positively ejecting the lowermost coin or coins from the respective coin tubes by the proper operation of coin tube trigger mechanisms.

It is an object of this invention to construct a portable change maker adapted to be readily taken apart and assembled.

Another object of the invention is the construction of a change maker wherein a plurality of removably connected sections are adapted to be constructed independently of each other and then removably assembled to form the portable change maker.

A further object of the invention is the construction of a change maker wherein the coin tube section and the coin ejecting base section are removably connected together by means of mounting hook members.

It is also an object of this invention to provide a change maker adapted to eject coins therefrom, and having the parts removably assembled to permit cleaning and repairs.

It is furthermore an object of the invention to construct a portable change maker wherein a coin tube section and an ejecting base section are adapted to removably interfit each other to permit mounting hook members to removably engage said sections.

Another object of the invention is to provide a change maker wherein the various parts which are rigidly secured to one another are riveted together, to eliminate the use of solder and thereby simplify the method of assembling.

It is an important object of the invention to provide a portable change maker wherein a base member on which the ejecting mechanisms are mounted is adapted to have a coin tube section removably mounted thereon and held in position by means of removable supporting hooks.

Other and further important objects of this invention will be apparent from the disclosures in the specification and drawings.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a front elevation of a change maker embodying the principles of this invention.

Fig. 2 is a rear elevation thereof.

Fig. 3 is a sectional view taken on line 3—3, of Fig. 1, with the coin tubes omitted.

Fig. 4 is an end view of the device.

Fig. 5 is a fragmentary detail section taken on line 5—5, of Fig. 1, with parts shown in elevation.

Fig. 6 is a section taken on line 6—6, of Fig. 1.

Fig. 7 is a front elevation of the base of the device showing the lower coin tube support in position and with the tubes omitted.

Fig. 8 is a top plan view of the locking mechanism removed from the change maker.

Fig. 9 is a tube section taken on line 9—9, of Fig. 4.

Fig. 10 is an enlarged fragmentary detail section of a lever support taken on line 10—10, of Fig. 4, with parts omitted.

Fig. 11 is an enlarged fragmentary detail section taken on line 11—11, of Fig. 7.

Fig. 12 is an enlarged fragmentary detail section on line 12—12, of Fig. 2.

Fig. 13 is an enlarged fragmentary detail section taken on line 13—13, of Fig. 4.

Fig. 14 is a sectional view taken on line 14—14, of Fig. 3, showing the lever in elevation.

Fig. 15 is a fragmentary detail section taken on line 15—15, of Fig. 2.

As shown on the drawings:

The change maker comprises a base section, a coin tube section, a locking member and supporting members for removably holding the sections together. The coin

tube section embraces a number of cylindrical coin tubes, the tubes denoted by the reference numerals 1 and 2, being adapted to receive nickles, another denoted by the reference numeral 3, adapted to receive dimes, and the fourth tube 4, adapted to receive pennies deposited therein. Each of the coin tubes is provided with view apertures 5, in the front thereof to permit coins, if there are any carried in said coin tubes, to be readily seen. Rigidly securing the lower portions of all of the coin tubes together is a lower bracket or support which is disposed behind the tubes and comprises a horizontal plate or flange 6, having integrally formed at right angles to the front edge thereof a plurality of spaced downwardly projecting curved tube holders or concave lugs 7, which are secured by means of rivets 8, or any other suitable means to the rear of the tubes to hold the same properly positioned with respect to each other. The ends of the bracket plate 6, extend beyond the tubes 1 and 4. Integrally formed on the inner or front edge of the plate 6, between the tube holders 7, are upwardly and rearwardly directed hooks 9. Rigidly securing the upper portions of the coin tubes together is an upper bracket or support, which is disposed behind the tubes and embraces an inclined plate 10, one longitudinal margin of which is bent horizontally as denoted by the reference numeral 11. Integrally formed on the front or inner margin of the plate 10, is a plurality of spaced downwardly projecting curved upper tube holders or concave lugs 12, which are rigidly secured to the upper rear portions of the respective coin tubes by means of rivets 13, or other suitable means.

Secured across the open upper ends of the coin tubes 1, 2, 3 and 4, is a single or unitary inclined cover plate 14, which is flanged downwardly and has the front portion thereof shaped or formed to afford a cover for each one of the respective coin tubes. Each of the respective covers thus provided for the coin tubes, has a coin slot 15, formed therein, by which a coin of the proper denomination may be easily introduced or dropped into the respective coin tube. The rear longitudinal margin of the cover plate is bent horizontally as denoted by the reference numeral 16. As shown in Figs. 5 and 6, the horizontal portion 16 of the cover plate 14, engages over the horizontal portion 11, of the upper bracket, and is rigidly secured thereto by means of rivets 17, or any other suitable means.

The base section has the coin ejecting mechanisms mounted thereon and comprises a base plate 18, on the curved rear margin of which is integrally formed an upright curved rear wall 19, which has the upper margin thereof bent inwardly to afford a flange or rim 20, adapted to be engaged by the hooks 9. Struck inwardly from the rear wall 19, is a plurality of longitudinally alined lugs, tongues or projections 22, leaving openings 23, in said rear wall. The ends of the back wall 19, are bent forwardly to form end walls 24, which are provided with large openings 25. Formed in the lower front corner of each of the end walls 24, are openings adapted to securely receive teeth or projections 26, expanded therein, which are integrally formed on the end margins of the base plate. Rigidly secured in an aperture formed in the upper front corner of each of the end walls 24, is a tooth or projection 27, one of which is integrally formed on each end of the horizontal flange 20, which is disposed between the end walls 24, and in front of the rear wall 19, and has the front edge positioned to permit the same to be engaged by the hooks 9. Provided in the rear wall 19, near each end thereof is a horizontal slot 21, terminating at one end in an opening 28, for a purpose hereinafter described.

Pivoted on the base plate 18, beneath each of the respective coin tubes 1, 2, 3 and 4, are ring shaped ejectors or discharge elements 29, 30, 31 and 32, respectively. The ejectors are normally disposed to register beneath the open bottoms of the coin tubes, so that coins deposited therein fall to the bottom of the tubes with the lowermost coin or coins seating within the ring shaped ejectors. The nickel ejector 29, is of a depth sufficient to receive four nickels seated therein, while the nickel ejector 30, is adapted to receive but a single nickel. The dime ejector is of a thickness to permit the same to hold but a single dime, while the penny ejector 32, is adapted to receive four pennies seated therein. It will of course be understood that the coin tubes may be provided in sizes to receive coins of any desired denomination other than those described, and that the ejectors may be made of any desired depth or thickness to permit the same to eject with a single operation any number of coins desired for the making of change.

The ejectors are clearly shown in Fig. 3, and are of different sizes corresponding with the size of the coin for which they are designed to eject. The ejectors are of similar form and each is provided with an integral tongue or extension 33, and an integral arm or extension 34, pivotally held on the base plate 18, by means of a pivot pin or rivet 35. Integrally formed on the outer edge of each of the arms 34, is a gear segment comprising teeth 36. A back stop 37, secured on the base plate 18, is provided for each of the ejecting rings to limit the inward movement thereof. Pivotally mounted on the base plate 18, to the rear of each of the arms 34, is a gear segment 38, provided with a slot or

opening, and having the teeth thereof in mesh with the teeth 36, of the respective ejecting ring.

For the purpose of swinging any one of the ejecting rings outwardly over a semi-circular cut-away portion of the base plate 18, a trigger or bell-crank lever 39, is provided one for each of said ejecting rings. The construction of each of the triggers 39, is identical, and each is pivotally mounted between the forks or tines of a U-shaped or yoked bracket 40, rigidly riveted or otherwise secured upon the inner surface of the rear wall 19, as clearly shown in Fig. 10. Each of the triggers is provided with a downwardly directed integral tail 41, which engages in the opening, of the respective gear segment 38, disposed therebelow. When a trigger is depressed, the tail 41, swings inwardly or rearwardly, and being engaged in the opening of the respective gear segment 38, pivotally swings or rotates the gear segment, the teeth of which, being in mesh with the teeth 36, of the respective ejecting ring, swing the coin ejecting ring outwardly from the frame from beneath the coin tube into register with the semi-circular cut-away portion of the base plate to permit a coin or coins seated in and carried outwardly by the ejecting ring to fall therethrough into the hand of the operator. A coiled spring 42, one for each of the triggers is provided, coiled around pintles 43, supported by adjacent yoke brackets 40, and upon which said triggers are also mounted. One end of each of the springs 42, bears against the rear wall 19, and the other end is engaged behind the tail 41, of the respective trigger, so that depressing movements of the triggers are resisted by the springs and after depression of said triggers, the same are returned by said springs to normal position and the ejecting rings therewith. Front stops 44, are provided on the base plate 18, to limit the forward movement of the ejecting rings.

Provided in each of the rear corners of the base plate 18, the plate 6, the flange plate 20, and the plate portions 11 and 16, are openings or apertures 45. The apertures 45, in each corner of the device are axially alined with one another when the coin tube section is engaged on the base section. To removably hold said sections together an upright retaining rod 46, is removably engaged through the registering openings 45, in each rear corner of the device, and each of said rods 46, has the upper end thereof curved or bent rearwardly and downwardly to afford an attaching or supporting hook 47, adapted to be engaged over the belt of a person by whom the change maker is used. The lower projecting end of each of the rods 46, is diametrically drilled or passaged to removably receive a cotter pin 48, to hold the device sections assembled.

To hold the actuating levers 39, locked in normal position against depression, a curved locking bar 49, is provided having the ends thereof bent forwardly to afford stops 50. Integrally formed or rigidly secured to the convex or front side of the locking bar 49, are four spaced projections, tongues or latches 51, one for each of the ejecting levers 39. Integrally formed on the upper edge of the locking bar 49, near each end thereof is a supporting guide hook 52. To removably mount the locking bar in position against the inner surface of the rear wall 19, the hooks 52, are engaged through the openings 28, after which the bar is moved to permit the hooks 52, to slide in the slots 21, into a position wherein the latches 51, engage behind the tails 41, of the levers 39, to hold the levers locked against depression when the change maker is assembled. The locking mechanism is adapted to be operated only from the rear of the change maker by engaging and sliding the hooks 52, in the slots 21. When the bar 49, is moved, the stops 50, are adapted to contact with one or the other of the rods 46, to limit the movement of said bar.

The operation is as follows:

In the portable type of change maker described, the base section, the coin tube section, the locking mechanism, and the hook supports may be manufactured independently of each other, and removably assembled as required. To simplify the construction and reduce the cost of manufacture soldering and brazing is dispensed with and riveting is used instead, where necessary. To assemble a change maker the locking bar is first engaged against the inner surface of the rear wall 19, by inserting the hooks 52, through the openings 28, and then sliding the bar to permit the hooks to move into the slots 21. The bracket plate 6, of a coin tube section is next engaged below the flange plate 20, and above the projections 22, of the base section with the hooks 9, engaged around the front edge of said plate 20. The rods 46, are then inserted through the respective openings 45, and the cotter pins 48, are removably engaged through the lower projecting apertured ends of said rods, thereby holding said coin-tube section and said base section properly associated with one another to form the change maker, which may be readily dismembered to permit cleaning or repairs when necessary. The locking mechanism is adapted to be operated only from the rear of the change maker by sliding the hooks 52, in the slots 21, to a position wherein the latches 51, engage behind the tails 41, of the levers 39.

To use the change maker, the hooks 47 thereof are engaged over a belt or other supporting means worn by the person who is required to make change, and the locking

mechanism is moved to open position to permit depression of the levers 39. Coins received are then inserted through the slots 15, according to their denomination to drop into the respective coin tubes 1, 2, 3 or 4, as the case may be. The deposited coin or coins fall by gravity in said tubes, stacking one upon another with the lowermost coin or coins of each tube seated in the coin ejecting ring element disposed in register with the lower end of the tube. In order to obtain the coin or coins necessary to make change, the operator depresses the proper trigger 39, thereby rotating the respective gear segment 38, which, being in mesh with the teeth 36, of the respective ejecting ring mechanism, thereby swings the ejecting ring outwardly into a position against the respective outer stop 44, to register over the semi-circular cut-away portion of the base plate 18, which permits the coin or coins carried in the particular ejecting ring to fall by gravity therethrough into the hand of the operator. Release of the trigger then causes the ejecting ring to be returned automatically to registering position beneath the respective coin tube and against a rear stop 37, under the stress of the spring 42. It is due to the fact that the integral tongue or extension 33, formed on each ejecting ring has swung into position beneath its coin tube that the remaining coins in the tube are prevented from falling downwardly upon the base plate 18, in position behind the projected ejecting ring, which would of course prevent said ring returning to normal position and would make proper operation of the device impossible.

We are aware that various details of construction may be varied through a wide range without departing from the principles of our invention, and we therefore do not purpose limiting the patent granted otherwise than as necessitated by the prior art.

We claim as our invention:

1. A change maker comprising a base section, a coin tube section, a plate disposed transversely across the rear wall thereof, and spaced parallel members integral with the base section for receiving said plate therebetween to hold the sections engaged in operating position.

2. In a change maker adapted to be supported from the belt of the operator by hook supporting means, a base section, and a coin tube section removably engaged therewith, said sections adapted to be held in assembled position by the supporting means.

3. A portable change maker embracing a coin ejecting base section, a coin tube section, a plate secured on the rear thereof, a flange integral with said base section, lugs struck from the base section, said plate adapted to fit between said flange and said lugs, and hooked supporting members for removably engaging said sections and said plate and flange to hold the sections assembled.

4. A portable change maker adapted to be held in operative position by hook members, and including in combination, a base section, coin ejecting mechanisms thereon, a coin tube section removably interfitting with said base section, and having said hook supporting means removably engaging said base section and said coin section to hold the same in operative position with respect to one another.

5. A portable change maker consisting of a base section, coin ejecting mechanisms mounted thereon, members secured on said base section, a coin tube section, supporting means rigidly secured thereon adapted to be removably engaged between said members, and hooked supporting members removably engaged with said coin tube section, said members, said supporting means and said base section to hold the same removably assembled with said ejecting mechanisms operatively positioned with respect to said coin tube section.

6. In a change maker a coin ejecting base section, lugs struck therefrom, a plate integrally formed on said base section above said lugs, a coin tube section, a bracket support rigidly secured to said tube section and adapted to removably fit between said lugs and plate, and hooked members removably engaged with said coin tube section, said plate, said bracket support and said base section to hold the change maker in assembled form, said hook members being likewise adapted to support the device in position upon the belt of the wearer.

7. A portable change maker comprising an apertured coin ejecting base, lugs struck therefrom, an apertured plate integrally formed on said base above said lugs, a plurality of coin tubes, an apertured lower bracket rigidly holding said coin tubes spaced from one another, said lower bracket removably engaged between said lugs and plate, hooks integrally formed on said lower bracket adapted to engage around one edge of said plate, an apertured upper bracket securing said coin tubes together, an apertured and slotted cover secured to said coin tubes and to said upper bracket, and hooked members removably engaged through all of said apertured members to hold the same assembled, said hook members being further adapted to removably support the device in position for operation.

8. A change maker adapted to be readily manually assembled and taken apart, including in combination a slotted base section, a coin tube section removably engaged therewith, and a locking mechanism removably mounted to project through the rear wall of

said base section adapted to co-act with said coin tube section to control the ejection of coins therefrom.

9. A change maker adapted to be readily manually assembled and taken apart, including in combination a base section, a slotted back plate integrally formed thereon, members integral therewith, a locking mechanism removably engaged with said back plate, a coin tube section removably mounted on said base section, means thereon projecting between said members, and ejecting mechanisms on said base section adapted to be locked by said locking mechanism.

10. In a portable change maker, the combination of a base section, a coin tube section, and a locking mechanism, all removably assembled and held together in operative position by hooks, said hooks being additionally adapted to support the device from the belt of the operator.

11. A portable change maker, comprising a plurality of connected sections adapted to be removably assembled and to be held in assembled position by means of hook members, said hook members being additionally adapted to support the device from the belt of the wearer thereof.

In testimony whereof we have hereunto subscribed our names in the presence of two subscribing witnesses.

MAX C. BRUHN.
GEORGE F. McGILL.

Witnesses:
EARL M. HARDINE,
CHARLES W. HILLS, Jr.