Dec. 13, 1960 W. H. HENDERSON 2,964,237

SAFETY LOCKING DEVICE

Filed March 16, 1959

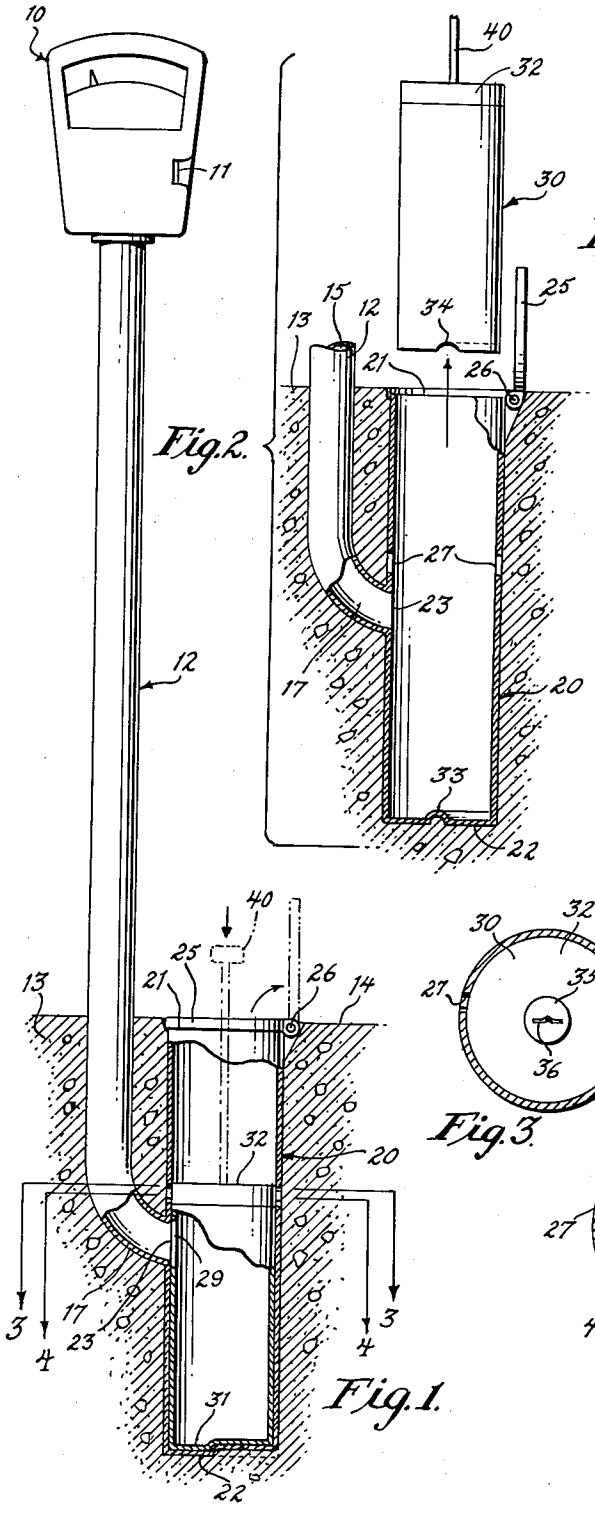



Fig. 1.

Fig. 2.

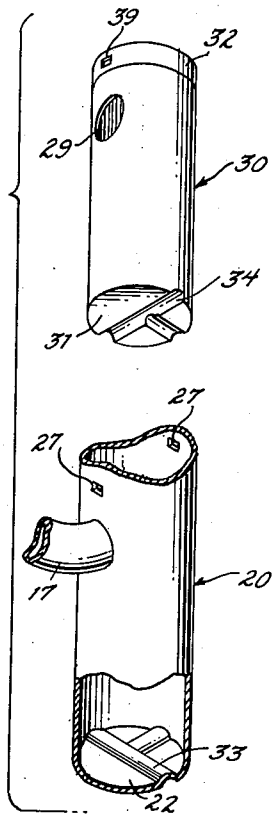



Fig. 6.




Fig. 3.

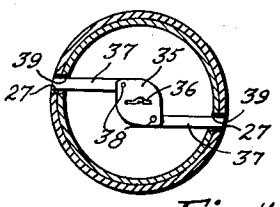



Fig. 4.

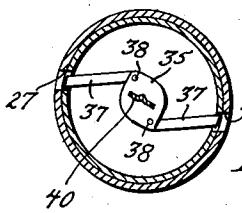



Fig. 5.

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# SAFETY LOCKING DEVICE

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This invention relates generally to coin machines and is especially concerned with the coin-receiving structure thereof.

While the device of the present invention has been primarily developed for use in connection with parking meters, and is illustrated and described hereinafter with particular reference thereto, it is understood that the inventive concept here employed is capable of many varied applications all of which are intended to be comprehended herein.

It is an important object of the present invention to provide a coin-receiving structure for a parking meter or the like which affords maximum security against unauthorized tampering and theft, to the extent that monies deposited in parking meters are safe even if the parking meter, including all parts thereof above ground, are damaged or removed. Obviously, this presents a very strong deterrent to any tampering whatsoever with such devices.

It is another object of the present invention to provide a coin-receiving structure of the type described, which is extremely easy to use and operate, as in the authorized removal of coins, and which requires little or no maintenance for a long and reliable useful life.

It is a further object of the present invention to provide a coin-receiving apparatus having the advantageous characteristics mentioned in the preceding paragraphs which is durable and fool-proof in construction and use, and which can be economically manufactured and installed.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

Figure 1 is an elevational view showing a parking meter constructed in accordance with the teachings of the present invention, and illustrating certain novel parts thereof in cross section, with an alternative position being shown in dot-dash outline;

Figure 2 is an elevational view similar to Figure 1, but showing parts thereof in another condition of use;

Figure 3 is a transverse sectional view taken substantially along the line 3—3 of Figure 1;

Figure 4 is a transverse sectional view taken substantially along the line 4—4 of Figure 1;

Figure 5 is a transverse sectional view similar to Figure 4, but showing a different operative condition of the instant device; and

Fig. 6 is a partial exploded perspective view showing certain parts of the instant structure in a spaced-apart condition.



Referring now more particularly to the drawings, and specifically to Figure 1 thereof, there is illustrated therein a coin-machine proper, generally designated **10**, which is shown for purposes of illustration as being a parking meter and having a conventional coin-receiving slot **11**. The parking-meter coin machine **10** is mounted or carried on the upper end of an upstanding post or standard **12**, which may be a pipe or tube formed with a longitudinally extending hollow interior and having its lower-end region penetrating into and embedded in an anchoring body or ground **13**. That is, the standard or tube **12** extends downward through the ground surface **14** and is fixed or embedded therebeneath, as by concrete **13**.

The coin-machine proper **10** may be of conventional construction such that a coin introduced into the slot **11** may effect actuation of the machine. However, subsequent to actuating the machine **10**, a coin introduced therein passes into the interior or generally vertically extending passageway **15** of the standard or pipe **12** and downward therethrough. Thus, the coin slot **11** communicates with the upper end of the internal passageway **15** of standard **12**, so that coins inserted into the slot pass into the standard and gravitationally downward therein.

Extending generally sideways, or laterally and downward from the lower end of the standard **12** is an extension conduit or pipe **17**. The extension conduit **17** may be integral with the standard **12**, being formed say by bending the lower portion of the standard approximately 90° or less. As best seen in Figures 1 and 2, the laterally extending conduit **17** is embedded in the concrete or ground **13** beneath the ground surface **14**.

Also embedded in the ground or concrete **13** is a generally vertically disposed, cylindrical casing or shell **20**. The casing or shell **20** is located alongside of the lower region of standard **12**, and has its upper end **21** open and substantially flush or level with the ground surface **14**. The casing **20** extends downward below the conduit **17** and may have its lower end closed by an end wall **22**. At a location intermediate the upper and lower ends of the casing **20**, the lower or distal end of the conduit **17** is rigidly connected to the casing side wall, the latter being open, as at **23** for communication between the interior of the conduit and the interior of the casing **20**. Thus, coins moving gravitationally downward in the standard or pipe **12** pass through the conduit **17** and the opening **23** of the casing **20**. On the upper end of the casing **20** may be provided a lid or closure **25** hinged to the casing proper, as at **26**, for swinging movement between the closed, solid-line position of Figure 1, and the open positoin thereof in dot-dash outline. The extension conduit **17** is thus connected to the casing **20** at a side region thereof medially between the lower and upper ends of the casing. Spaced considerably below the upper end of the casing **20**, and above the juncture of the casing and conduit **17**, there are advantageously provided a pair of opposite recesses or openings **27** defined by holes in the casing side wall.

Removably engageable in the casing or shell **20** is a coin receptacle, generally designated **30**. The receptacle **30** may be of generally cylindrical, hollow configuration for sliding insertion downward into the casing **20**, and upward withdrawal from the latter. It will be noted that the receptacle **30** is of a height or length considerably less than that of the casing **20**. More specifically, the receptacle **30** has its lower end closed by a bottom wall **31**, and its upper end closed by a head **32**, and is of such a height that the upper-end closure or head is located proximate to the casing openings **27** when the receptacle bottom wall is seated on the casing bottom wall. As best seen in Figure 6, the casing bottom wall

is provided with any suitable configuration **33** adapted to interengage or interfit with a similar configuration **34** on the receptacle bottom wall. As best seen in Figure 1, the bottom wall **31** of the receptacle **30** seats conformably on the bottom wall **22** of the casing **20** with the formations **33** and **34** in their interfitting engagement. An inlet opening **29** is provided in the side wall of the cylindrical receptacle **30** and located to register with the casing side-wall opening **23** and the extension conduit **17** when the formations **33** and **34** are in proper interfitting engagement.

Interiorly of the head **32** on the upper end of receptacle **30** is a rotatable lock **35** which faces upward or outward from the head. The lock **35** is preferably provided with a key slot or hole **36** for actuation by a key. Pivotally connected to the lock **35**, interiorly of the head **32**, are a pair of locking members or arms **37** mounted for laterally extensile and retractile movement with respect to the receptacle upon rotation of the lock. More specifically, as best seen in Figures 4 and 5, the locking members or arms **37** each has its inner end pivoted, as at **38**, to opposite sides of the lock **35**, and has its outer end extending outward through an opening **39** in the periphery of the head. Upon rotation of the lock **35** from its position of Figure 4 wherein the locking arms **37** project laterally or radially beyond the head of the position of Figure 5, the arms withdraw or retract into the head. It will also be noted in the condition of Figure 4 that the locking members or arms project from the receptacle head **32** into the openings or recesses **27** formed in the casing **20**, thereby locking the entire receptacle in position in the lower region of the casing.

It is therefore necessary to rotate the lock **35**, as by insertion of the proper key **40** into the slot **36**, in order to effect retraction of the arms **37** to their condition of Figure 5, wherein the receptacle may be withdrawn upwardly from the casing **20**, as seen in Figure 2. This unlocking and withdrawal of the receptacle is facilitated by the use of an abnormally long key which serves also as a withdrawing tool, and without which both unlocking and withdrawal would be impossible or extremely difficult. It will now be appreciated that coins pass downward through the standard **12**, conduit **17**, and inlet opening **29** into the receptacle **30**, where they are retained with a maximum security until removal by authorized personnel. This is easily accomplished by the use of an abnormally long key **40** both as the unlocking and withdrawing tool, whereupon the receptacle may be emptied, say through the opening **29**, or other opening may be provided, if desired. The empty receptacle **30** is then slidably inserted downward into and replaced in the casing **20**, and the lock **35** rotated to engage the locking members **37** in the casing openings **27**, whereupon the key **40** is



removed and the cover **25** closed, for further use of the device.

From the foregoing, it is seen that the present invention provides a coin-receiving mechanism and apparatus which fully accomplishes its intended objects and is well-adapted to meet practical conditions of manufacture, maintenance, and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.

What is claimed is:

1. A coin-machine apparatus comprising a vertical post having its lower end entirely embedded in the ground and provided with a generally vertical internal passageway, a coin receiving apparatus on an upper region of said post and provided with a coin-receiving slot communicating with an upper region of said passageway for passing coins to the latter, a conduit entirely within the ground extending laterally from a lower region of said post communicating with a lower region of said passageway, a generally vertical casing embedded within the ground and connected on one side at a vertically medial region to the extending end of said conduit in communication therewith, said casing having its upper end substantially flush with the ground surface, an openable closure on the upper end of said casing, a receptacle removably engaged in the lower region of said casing spaced from the upper end thereof and having a side inlet in its upper region opening through said casing into said conduit for receiving coins from the latter, and at least one locking arm mounted on said receptacle for lateral extensile and retractile movement into and out of locking interengagement with said casing.

2. Apparatus according to claim 1, in combination with interengageable means on said casing and receptacle constraining the latter to engagement in said casing with said inlet in alignment with said conduit.

3. Apparatus according to claim 1, in combination with an upwardly facing key-actuable lock in the upper end of said receptacle connected to said locking arm for operating the latter from exteriorly of said casing through the upper end thereof.

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