Aug. 30, 1960 S. M. WEISSMAN ET AL 2,950,676

STAMP

Filed May 15, 1957 2 Sheets-Sheet 1

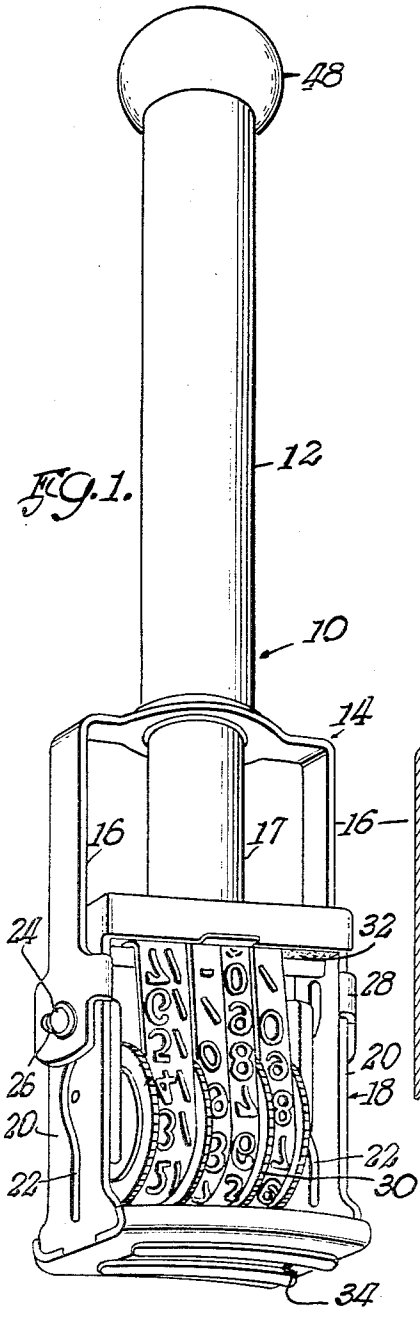


Fig. 1.

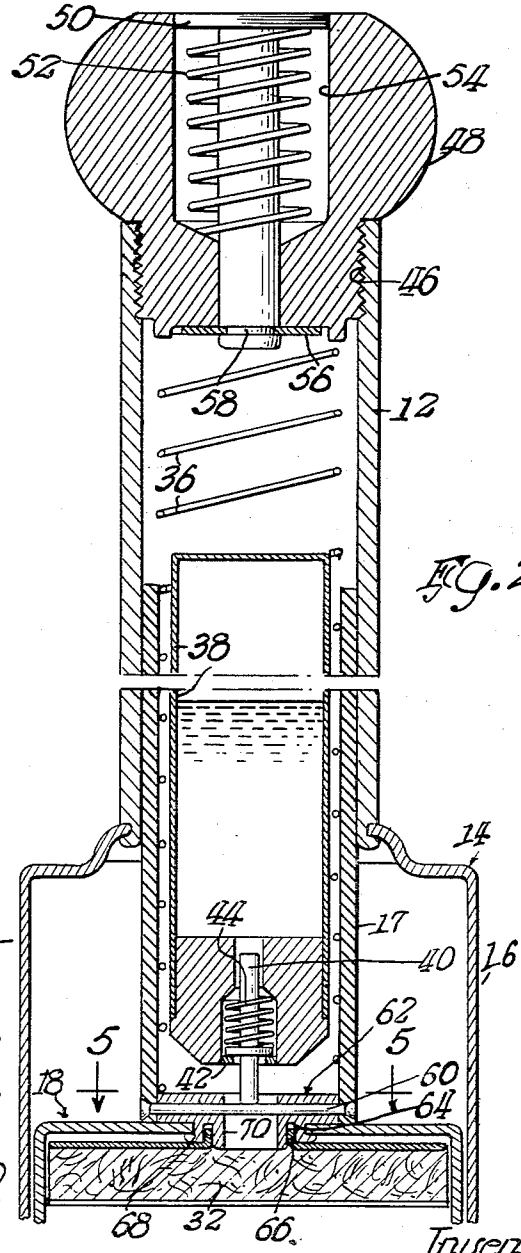


Fig. 2.

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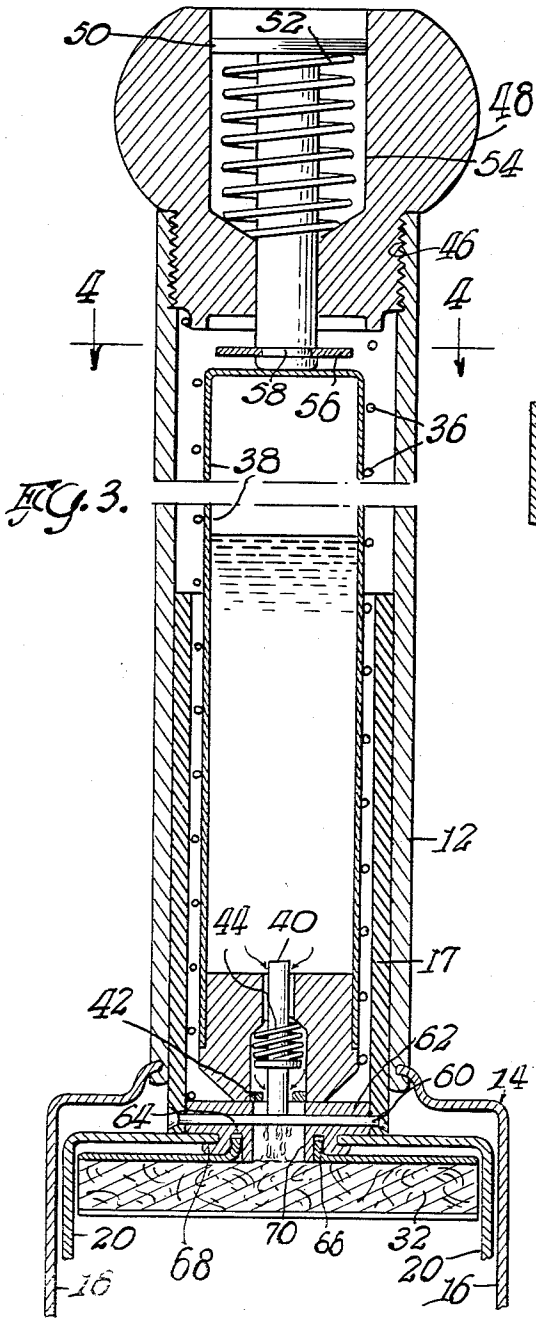


Fig. 3.

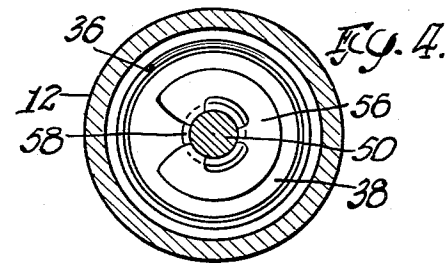


Fig. 4.

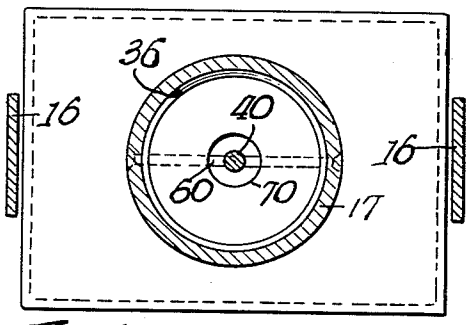


Fig. 5.

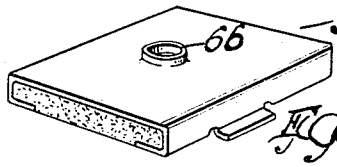


Fig. 6.

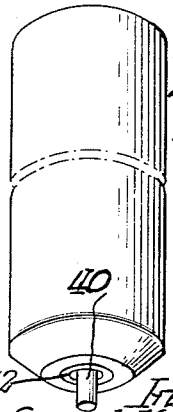


Fig. 7.

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STAMP

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2 Claims. (Cl. 101—334)

The present invention pertains to an improved self-inking stamp.

The many uses of self-inking stamps are well known. By self-inking is meant that type of stamp in which a spring-loaded handle member may depress a stamp reel from a position of rest on an inking pad to the surface of the article to be marked by means of a guided flopover movement. Self-inking stamps are found in the ordinary business office for dating incoming correspondence as well as for a variety of other uses. The popularity of the self-service food mart has also served to increase the widespread use of self-inking stamps which are used to mark the individual items of boxed or canned food, whereby the price may be readily made known to the customer without the need for inquiring from store personnel.

Continuous use of self-inking stamps, however, will, obviously, readily deplete the ink supply disposed on the ink pad which forms a portion of the stamp. Consequently, the pad must be changed or ink applied to the dry pad at regular intervals. Either operation is time-consuming and messy, resulting oftentimes in spillage of ink and staining of the fingers and clothing of the person using the stamp.

It is an object, therefore, of this invention to provide an improved self-inking stamp which possesses its own ink reservoir.

It is a further object of this invention to provide an improved self-inking stamp having a self-contained ink reservoir, which stamp varies slightly from the well-known self-inking stamp design whereby a manufacturer may fabricate the improved stamp with a minimum of retooling or other required changes in manufacturing techniques.

It is a still further object of this invention to provide an improved self-inking stamp which will substantially reduce the time necessary for replenishing the ink supply of the stamp pad resulting in large savings in time on the part of the person using the same.

It is yet another object of this invention to provide an improved self-inking stamp in which a depleted ink reservoir cartridge may readily be removed and a new cartridge substituted therefor in a matter of seconds without danger of ink spillage or soiling the hands of the stamp user.

The above and other objects of this invention will become more apparent from the following detailed description read in the light of the accompanying drawing and appended claims.

In one embodiment of this invention, a stamp cage portion having an ink pad secured in a recess formed therein in a cage top portion is provided. A handle member is spring biased so as to assume an extended position away from the underlying cage portion. The latter handle portion has opposed dependent arms secured thereto which slidably engage opposed sides of the stamp cage and is guided in the course of its reciprocal movement by means of a telescopically engaged guide post secured to the top

surface of the cage. A stamp reel-engaging pin member traverses both the cage sides and the handle arms and is reciprocally moved by the handle in the normal course of stamp operation.

The above stamp construction is common and well known in the art. It has been found that, if an elongated handle were employed and if a novel valved ink cartridge were disposed therein, such a self-inking stamp would possess its own ink supply and would enable the stamp to function for extremely long periods of time without the necessity of replenishing the ink supply on the stamp ink pad.

Accordingly, the self-inking stamps provided by this invention utilize elongated handle members which are hollow so that an ink cartridge member may be disposed therein. The cartridge member is also partially disposed in the center guide post secured to the top surface of the stamp cage. In one embodiment of the provided invention a spring-loaded valve member is disposed in the bottom of the cartridge disposed in the center post and hollow handle of the provided self-inking stamp. The latter valve is opened only when a spring-loaded button disposed at the distal end limit of the stamp handle is depressed when the handle member is in the actuated, or down, position whereby the ink cartridge valve member is forced into the open position. The ink cartridge is disposed in close proximity to the ink pad and a passageway interconnects the latter two stamp elements. Consequently, when it is desired that the ink pad of the provided stamp be replenished with ink, a button disposed in the handle is pushed with the handle in the actuated or stamping position, thereby opening an ink cartridge valve allowing ink to flow into the underlying ink pad. Upon release of the spring-loaded button, the ink cartridge valve immediately returns to the closed position.

For a more complete understanding of this invention, reference should now be made to the drawings, wherein

Figure 1 is a perspective view of one embodiment of the provided self-inking stamp;

Fig. 2 is an enlarged fragmentary sectional view of an upper portion of the stamp member illustrated in Fig. 1 illustrating the valve member of the depicted ink cartridge in the closed position;

Fig. 3 is a sectional view similar to Fig. 2 illustrating the ink cartridge valve in the open position and the spring-loaded push button in the depressed valve-opening position;

Fig. 4 is a sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 2;

Fig. 6 is a perspective view of an ink pad which may be employed in the provided stamp; and

Fig. 7 is a fragmentary perspective view of the ink cartridge utilized in Figs. 2 and 3 of the drawings.

Referring now more particularly to Fig. 1, the numeral 10 designates a self-inking stamp which from all external appearances is of somewhat the same construction as those self-inking stamps which are well known in the art. An unusual structural feature which the illustrated stamp possesses comprises the elongated handle 12. The latter handle is securely joined to the stamp depending yoke portion 14 having opposed arm portions 16. The stem handle and yoke are mounted over the usual type of stamp cage 18 having opposed slotted side portions 20. The grooves 22 in the opposed cage sides guide the movement of a transverse pin member 24 which is secured to the opposed arms 16 of the stamp yoke 14. The yoke arms 16 are slotted as at 26 to allow lateral movement of the pin 24 in the course of the stamp handle and yoke reciprocal movement relative to the cage 18. It is further apparent from Fig. 1 that handle guide post 17 is telescopically

received within handle **12** in the course of the handle reciprocal movement. Each yoke arm **16** depicted in Fig. 1 has opposed lug portions **28** which slidably engage the edges of the cage sides **20** in the course of normal stamp operation.

The pin **24** traverses the entire illustrated stamp reel portion **30** and, in the course of the pin downward movement, reverses the stamp reel **30**, 180°. Consequently, that portion of the stamp reel abutting against a pad **32** disposed in the top portion of the stamp cage **18** will be reversed and, at the lowermost position of the handle, travel will project through opening **34** in the bottom of the illustrated cage for purposes of being applied to an article to be stamped.

The portions of the self-inking stamp thus far described are well known in the art. "Self-inking" is believed to be an appropriate descriptive term for the provided stamp. In the position of rest illustrated in Fig. 1 that portion of the stamp reel **30** which is to mark desired goods is in a position abutting against the ink pad **32**. Upon depressing the handle **12**, the stamp reel **30** will reverse position 180°, and that portion abutting against the ink pad will project through opening **34** in the bottom of the stamp cage **18** and stamp any article disposed therebeneath.

Referring now to Figs. 2 and 3, it will be noted that both the center post **17** affixed to the top surface of the cage **18**, and over which the handle **12** is telescopically guided, and the handle **12** itself are hollow. Both the center post **17** and the handle **12** are seen to comprise concentric, telescopically arranged cylinders. A coil spring member **36** may be employed to resiliently urge the handle portion **12** and attached yoke **14** of the provided stamp away from the underlying cage and post portion of the stamp.

Thus, in the normal position of rest indicated in Fig. 2, the handle **12** of the provided stamp will be in the extended position until a stamping action is desired, whereupon coil spring **36** will be compressed by urging the handle, the yoke and stamp reel **30** of the provided stamp in a downward direction.

As is also most clearly seen from Figs. 2 and 3, the concentric hollow chamber defined by the handle and center post **17** of the provided stamp enables an ink cartridge **38** to be disposed therein. The exterior appearance of the latter cartridge may be most clearly seen from the perspective view of Fig. 7. The cartridge **38** is possessed of a spring-loaded valve **40** disposed in the lower end limit of the cartridge, which is positioned against valve seat **42** in the normal position of rest by means of coil spring **44**. Coil spring **36** snugly engages the periphery of cartridge **38** whereby stamp **10** may be inverted and cartridge **38** will remain in the position illustrated.

As seen from Figs. 2 and 3, the upper end limit of the stamp handle **12** is internally threaded at **46** for purposes of engaging knob member **48** which defines the central portion of the distal end limit of the provided stamp. The central portion of the knob **48** houses a spring-loaded button **50** which is resiliently urged away from the handle interior by means of a coil spring **52**. The spring and button are housed in knob recess **54** as illustrated. In order to retain the spring-loaded button **50** to the knob **48**, a spring lock washer **56** is provided which engages an annular recess **58** disposed adjacent the lower distal end limit of the illustrated button **50**. The manner in which the washer **56** retains the button **50** to the knob **48** is apparent from the sectional view of Fig. 4.

It will be noted from Fig. 2 that, in the normal position of rest, that is, when the stamp is in the inoperative position, the cartridge **38**, which comprises an ink reservoir has its upper end limit spaced a predetermined distance from the lower distal end of the spring-loaded button **50**. The latter interval comprises the distance the handle **12** telescopically moves downwardly over guide post **17**. At the end of this latter movement, the lower distal end of the button **50** is disposed adjacent the cartridge upper end. In the inoperative position, the valve **40** of the provided ink cartridge rests, in the closed position, on a tranverse pin member **60** which serves to fasten the center post **17** to a securing collar **62** which has an annular recess at **64** for purposes of engaging ink pad **32** as will be more apparent from Fig. 6. The portion of the ink pad **32** engaged by the securing collar **62** is a raised annular portion **66** most clearly seen in Fig. 6. The securing collar also frictionally interlocks with the top surface portion of cage **18** by means of annular flange **68**.

The self-inking stamp **12** may function in its ordinary well-known manner until the impression left thereby indicates that the ink pad is being depleted of ink. Such a condition would rapidly be attained in a chain food store where stamps such as that illustrated are used to mark a large number of canned or packaged items.

To replenish the pad ink supply, all that the user of the provided self-inking stamp **12** need do is depress button **50** into the position illustrated in Fig. 3 while the handle member **12** of stamp **10** is in the lower or stamping operative position illustrated. As will be apparent from the latter figure, the button, because of its disposition against the cartridge upper end, will, in turn, force the entire cartridge in a downwardly direction so as to leave the valve opening defined by valve seat **42** and normally closed by the stationary valve **40** in an open condition, as illustrated in Fig. 3. Ink is then permitted to flow by gravity from the ink cartridge through interconnecting passageway **70** defined by the aperture in collar **62** into the underlying ink pad **32**. The button is depressed until the operator believes a sufficient quantity of ink has been deposited on the pad. The desired time of depression will soon become known to the operators using the provided stamps. Upon the release of button **50**, the spring **52** will immediately force the same into the raised position of Fig. 2 allowing the valve spring **44** to raise the entire cartridge into the position of Fig. 2 and thereby once again enabling the illustrated valve **40** to assume the closed position relative to valve seat **42**, stopping any further flow of ink.

It is thus apparent that an improved self-inking stamp has been provided which is possessed of its own ink reservoir. Consequently, the need for the application of ink to the ink pad after only a short period of use is eliminated. Each of the provided ink cartridges will obviously hold a supply of ink enabling the provided stamp to function for extremely long periods of time before the cartridge ink supply is depleted. When depleted, all that need be done to insert a new cartridge **38** is to unscrew knob member **48** whereupon the cartridge **38** may be readily removed and a new cartridge substituted therefor. The latter replacement operation may be effected in a matter of seconds and does not necessitate the handling of ink and assures the avoidance of soiling the fingers and clothes of the stamp user.

It is apparent that the provided stamp utilizes many well-known components of stamps of this type. The cartridge provided for extending the ink supply is of simple and sturdy construction. To incorporate the latter new features into self-inking stamps of known design would not require large expenditures of time or large expenditures for retooling.

We claim:

1. In combination, reciprocally movable stamp means or the like guided in a cage means and actuated by a hollow handle means, a hollow guidepost mounted on said cage means, said handle means being telescopically movable over said guidepost, reciprocally movable cartridge means disposed in said hollow guidepost, a fixedly positioned spring-loaded valve disposed in one end limit of said cartridge means normally in a closed position,

depressible finger-engageable plunger means disposed in said handle means, said plunger means engaging said cartridge means when said plunger is in the depressed position causing relative movement between said cartridge means and said valve when said handle means and guidepost are in the telescoped position whereby said spring-loaded valve assumes an open position relative to said cartridge.

2. In a stamp construction, means for stamping or the like, frame means supporting said stamping means, first hollow means engaging said frame means for reciprocally moving the same, second hollow means for guiding said first hollow means telescopically receivable within said first hollow means in the normal course of reciprocal movement of said latter means, fluid reservoir means disposed within said second hollow means, a valve means and a seat therefor in said reservoir for regulating the passage of fluid therefrom, a portion of said valve means projecting from said fluid reservoir means in the normal position of assembly, stop means for engaging said projecting valve means portion in the normal position of assembly, said reservoir and valve seat being movable relative to said valve means, and finger actuatable, reciprocally movable exteriorly accessible means mounted

in said first hollow means for engaging said ink reservoir and moving the same relative to said valve means therefor when said first and second hollow means are in telescopic engagement, said reciprocally movable means for engaging said reservoir being disposed in a distal end portion of said first hollow means whereby said valve means may assume an open position in the normal course of stamp means use by finger actuation.

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