March 30, 1937. E. F. BROWN 2,075,169

APPARATUS FOR IMPRINTING TAX INDICIA ON ITEMS

Filed Nov. 29, 1935

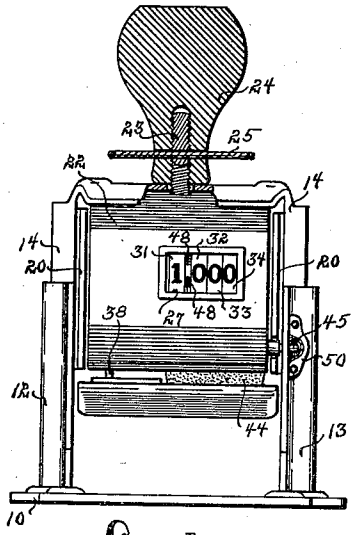


fig. 1

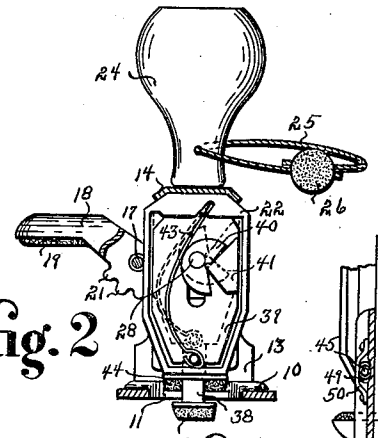


fig. 2

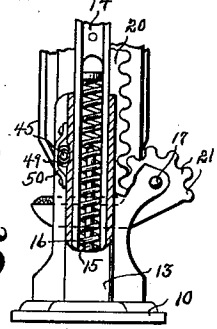


fig. 5

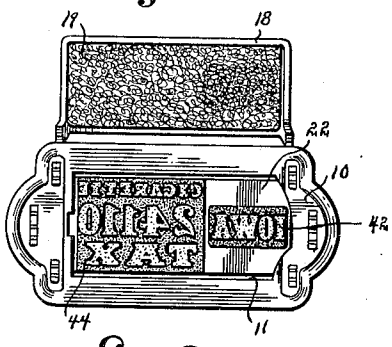


fig. 3

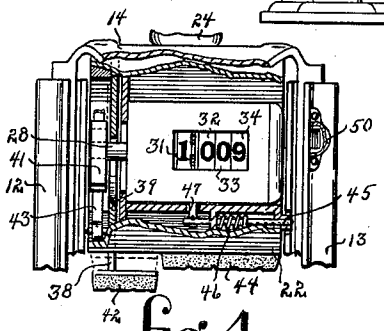


fig. 4

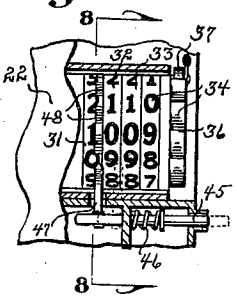


fig. 6

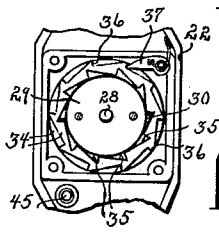


fig. 7

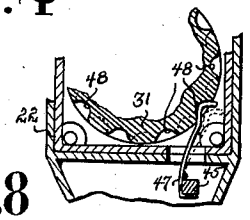


fig. 8

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APPARATUS FOR IMPRINTING TAX INDICIA ON ITEMS

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Application November 29, 1935, Serial No. 52,091

7 Claims. (Cl. 101—333)

The principal object of my invention is to provide a device for retail merchants that is capable of imprinting government tax information on certain taxable items of merchandise, thereby eliminating the usual gummed tax stamp and the cancelling of it.

A further object of this invention is to provide a tax indicia printing apparatus that keeps an accurate record of the times it has been used and one that after having been used a certain predetermined number of times, automatically locks against further use.

A still further object of my invention is to provide a device for imprinting tax indicia on merchandise that is economical in manufacture and durable in use.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawing, in which:

Fig. 1 is a front view of my apparatus ready for use.

Fig. 2 is a left end-sectional view of my device with the operating handle completely depressed.

Fig. 3 is a bottom view of the apparatus with the handle depressed.

Fig. 4 is a front-sectional view of a portion of the device and more fully illustrates its construction.

Fig. 5 is a right end-sectional view of a portion of my apparatus.

Fig. 6 is a side view of the locking mechanism of the device.

Fig. 7 is a right end view of the ratchet mechanism inside the housing portion of the device.

Fig. 8 is a cross-sectional view of the locking mechanism taken on line 8—8 of Fig. 6.

Although my device may be successfully used for marking information on various merchandise that a tax has been paid by the vendor, it is particularly adapted for marking State tax indicia on packages of cigarettes. The most common method now in use is for the merchant to purchase a quantity of cigarette tax stamps and when he sells a package of cigarettes to stick one or more of these stamps on the cigarette package and cancel it with a rubber stamper bearing certain information, such as his license number. Obviously, there are many disadvantages to this system. The printing of the gummed stamps is costly, and much time is lost in placing them on the package of cigarettes and cancelling them. Also, packages of cigarettes are encased with a Cellophane wrapper and which must be roughened before attempting to stick the stamp on it. I have overcome such disadvantages as will be hereinafter appreciated.

Referring to the drawing, I have designated the foot portion of my device by the numeral 10. This foot or base portion has an opening 11. Extending upwardly from this foot are two spaced apart posts 12 and 13. Slidably mounted in these two posts is the frame portion 14. The numeral 15 designates a vertical rod adjacent each of the posts 12 and 13. These two rods are secured to the base 10 and each is loosely encircled by the coil spring 16. Each of these springs has its lower end engaging the base 10 and its upper end engaging the frame 14 for yieldingly holding the frame in the upward position of its sliding movement, as shown in Fig. 1. The numeral 17 designates a shaft extending between the two posts 12 and 13 and located at one side of the frame 14, as shown in Fig. 2. The numeral 18 designates a tray member pivoted for swinging movement on the shaft 17. The numeral 19 designates an ink holding pad inside the tray 18. The numeral 20 designates a vertical toothed rack rigidly secured to each of the side portions of the frame 14. The numeral 21 designates a toothed gear segment integrally formed on each end portion of the tray 18. These two gear segments are in engagement with the two racks 20, respectively, and are so arranged that when the frame is in an upward position, as shown in Fig. 5, the tray 18 will be directly below the frame, as shown in this figure, and when the frame 14 is in a lowered position the tray 18 will be swung to an inverted out-of-the-way position, as shown in Fig. 2. The numeral 22 designates a housing normally resting between the two side portions of the frame 14. This housing 22 is rigidly secured to the frame 14 by having an upwardly extending threaded rod 23 extending through the top of the frame 14, as shown in Fig. 1. Threaded onto this rod 23 is the handle 24 engaging the top of the frame 14.

By this construction when it is desired to remove the housing 22 it is necessary to unscrew the handle 24 from the rod 23 in order that the housing 22 can be slid downwardly until the member 23 is free from the frame 14. To assemble the housing in and to the frame 14 it is merely necessary to insert the rod 23 through the frame and tighten the handle 24 on it, thereby clamping the upper portion of the frame 14 between

the handle 24 and the housing 22. In order to prevent unauthorized individuals from removing the housing 22 from the frame or disassembling the device, I have passed a flexible cable 25 through the handle 24 and through the rod 23 and secured the two end portions of this cable rigidly together by a seal 26. Obviously, as long as this cable 25 extends through the handle 24 and rod 23, the handle 24 cannot be removed for detaching the housing 22 from the device. Other means may be employed for preventing the unauthorized removal of the handle 24, such as a padlock or like. The numeral 27 designates a window in the front side of the housing 22. Rotatably mounted in the housing 22 is the meter operating shaft 28. Rigidly secured on the left end of this shaft 28 is a disc 29 having a spring pawl 30 protruding beyond its periphery. The numerals 31, 32, 33, and 34 designate the meter collars rotatably mounted inside the housing and around the shaft 28. These collars each have numerals on their peripheries, one at a time of which is capable of being observed through the window 27 in the well known manner. Obviously, these collars and their kindred mechanism operate in the usual manner, i. e., after the collar 34 has been rotated one complete revolution, the collar 33 will be rotated one-tenth of a revolution; when the collar 33 is rotated one complete revolution, it will cause the collar 32 to be rotated one-tenth of a revolution; and when the collar 32 is rotated one complete revolution, it will cause the collar 31 to be rotated one-tenth of a revolution.

The collar 34 has the usual internal ratchet teeth 35 which are individually engaged by the pawl 30. The numeral 36 designates external ratchet teeth on the collar 34. The numeral 37 designates a spring pawl in engagement with the external ratchet teeth 36 for preventing the rotation of the collar 34 to the right. The internal ratchet teeth 35 and pawl 30 are so arranged that the shaft 28 may rotate to the right without affecting the movement of the collar 34, but when the shaft 28 is rotated to the left the collar 34 will be rotated with it in the usual manner. Each of the collars carries the numerals "1, 2, 3, 4, 5, 6, 7, 8, 9, and 0" running around its periphery. It will be noted that there are ten internal ratchet teeth 35 to correspond with the ten figures on the collar 34. The numeral 38 designates a vertical arm slidably mounted in and through the flat bottom of the housing 22. This arm 38 is located near the left end of the housing 22 and is connected with a plate 39 located inside the left end portion of the housing 22. The numeral 40 designates a notched wheel rigidly secured on the left end of the shaft 28 and at the outer side of the plate 39. The numeral 41 designates a finger member rigidly secured on the plate 39 and in engagement with the notch of the wheel 40 as shown in Fig. 2. The numeral 42 designates an imprinting element on the lower end of the arm 38. Such imprinting elements usually consist of an embossed rubber pad and in the drawing, I show this imprinting element capable of imprinting the name of the government imposing the tax. The numeral 43 designates a spring for yieldingly holding the arm 38 in the downward position of its sliding movement. The possible reciprocation of the arm 38 is such that the finger 41 will rotate the wheel 40 and shaft 28 to positions where the pawl 30 will engage another notch of the ratchet teeth 35.

By this construction when the arm 38 is forced upwardly and then returned to a lowered position by the spring 43, the collar 34 will be rotated one-tenth of a revolution, thereby bringing one number higher on the reading of the meter through the window 27. The numeral 44 designates a stationary imprinting element on the bottom of the housing 14 similar to the element 42, except I show it capable of imprinting the merchant's serial number, the name of the merchandise being taxed, and the word "Tax".

The numeral 45 designates a shaft slidably mounted in the housing capable of having one of its ends extending from the housing when slid to the right. This shaft is held from rotary movement by having a portion of its length square in cross-section where it slides in a square bearing of the housing. The numeral 46 designates a spring having one end contacting the shaft 45 and its other end contacting the housing 14 for yieldingly holding the shaft 45 to the right. The numeral 47 designates a spring trigger element on the shaft 45 capable of entering and engaging any one of the ten depressions 48 in the periphery of the collar 31 for holding the shaft 45 to the left. By this arrangement when the collar 31 is rotated the finger 47 will be forced out of one of the depressions 48, thereby permitting the spring 46 to move the shaft 45 to the left and to a position protruding from the left of the housing. When in this position the left end of the shaft will protrude through an opening 49 in the post 13, thereby rigidly locking the frame 14 to the base, as shown in Fig. 1. Obviously, the device cannot again work without first manually depressing the shaft 45 back into the housing and the finger 47 into the next depression 48. To prevent the unauthorized depressing of this shaft to a normal position inside the housing, I have provided an enclosing cap 50 over the outer side of the opening 49.

The practical operation of the device is as follows: The opening 11 is placed over the merchandise to be marked with the base 10 on the merchandise and the handle forced downwardly. The downward movement of the handle causes the frame 14 to move downwardly. As the tray is in engagement with the rack teeth, the first downward movement of the frame will cause the tray to move outwardly from under the two indicia imprinting elements. These two imprinting elements will, of course, be suitably inked by having been in direct contact with the ink pad in the tray. By the further downward movement of the frame the two imprinting elements will pass through the opening 11 and onto the merchandise, thereby marking it with the indicia on these two members. However, as the element 42 is normally yieldingly held below the plane of the element 44 it will strike the merchandise, first causing the arm 38 to cease its downward movement with the frame. The frame, of course, will continue on downwardly until the element 44 engages the merchandise. This action causes relative movement of the frame to the arm, thereby rotating the shaft 28 to the right. When the handle is released the springs will raise the frame relative to the base, bringing the imprinting elements out of contact with the merchandise and the tray back under them for re-inking these elements. With the arm free to be moved downwardly relative to the housing and frame, the shaft will be rotated to the left. As the pawl 30 has been backed up to engage another internal notch of the collar 34, this rotation of the shaft to the left will

move the collar 34 one numeral higher and other of the collars may also be moved, provided the preceding collar was moved to zero reading, as is common in registering meters of this class. Obviously, the collar 34 is prevented from rotating to the left with the shaft 28 by the pawl 37.

From this, it will be seen that each time the handle is depressed to bring the imprinting elements onto merchandise to imprint tax indicia, the meter will so register.

By the tray 18 being of substantial depth and completely filled with a highly resilient inking pad 19 there is no danger of the counter arm 38 being actuated when the stamp 42 is engaged by the ink pad 19. The ink pad 19 will fluff up to engage both of the stamps 42 and 44 when the device is not being used.

Obviously, the meter may be constructed to register various numbers before the shaft 45 locks the device against further use. In the drawing, I show the device locking every one thousand times it is used. When it locks the proper government authority breaks the seal, removes the housing and resets the device by sliding the shaft 45 back into the housing. The merchant is then charged for the next one thousand stampings of the device.

Some changes may be made in the construction and arrangement of my improved apparatus for imprinting tax indicia on items without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a stationary imprinting element on said frame, an arm vertically slidably mounted on said frame, a second imprinting element on said arm normally resting in a plane below the plane of said first-mentioned imprinting element, a counter on said frame, and a means for operatively connecting said arm to said counter.

2. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a means for yieldingly holding said frame in the upward position of its sliding movement, a stationary imprinting element on said frame, an arm vertically slidably mounted on said frame, a means for yieldingly holding said arm in the downward position of its sliding movement, a second imprinting element on said arm and normally in a plane below the plane of said first-mentioned imprinting element, a counter on said frame, and a means for operatively connecting said arm to said counter.

3. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a means for yieldingly holding said frame in the upward position of its sliding movement, a stationary imprinting element on said frame, an arm vertically slidably mounted on said frame, a means for yieldingly holding said arm in the downward position of its sliding movement, a second imprinting element on said arm and normally in a plane below the plane of said first-mentioned imprinting element, a means for inking both of said imprinting elements, a counter on said frame, and a means for operatively connecting said arm to said counter.

4. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a means for yieldingly holding said frame in the upward position of its sliding movement, a stationary imprinting element on said frame, an arm vertically slidably mounted on said frame, a means for yieldingly holding said arm in the downward position of its sliding movement, a second imprinting element on said arm and normally in a plane below the plane of said first-mentioned imprinting element, a means for inking both of said imprinting elements, a counter on said frame, a means for operatively connecting said arm to said counter, and a mechanism operatively connected to said counter capable of locking said frame portion to said base portion against relative movement after said counter has registered a predetermined figure.

5. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, spring means for yieldingly holding said frame in the upward position of its sliding movement, a housing detachably connected to said frame, a means for preventing the detachment of said housing from said frame by unauthorized persons, an imprinting element on said housing, an arm vertically slidably mounted in said housing, a spring means for yieldingly holding said arm in the downward position of its sliding movement, an imprinting element on the lower end of said arm resting in a plane below said first-mentioned imprinting element when said arm is in the downward position of its sliding movement, a counter in said housing operatively connected to said arm, a releasable means operatively connected to said counter for locking said frame portion to said base portion against relative movement after a predetermined numerical figure has been reached by said counter; said means being capable of releasement only upon removal of said housing from said frame.

6. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a means for yieldingly holding said frame in the upward position of its sliding movement, a stationary imprinting element on said frame capable of imprinting indicia designating the merchandise being taxed and the number assigned to the merchant, an arm vertically slidably mounted on said frame, a means for yieldingly holding said arm in the downward position of its sliding movement, a second imprinting element on said arm and normally in a plane below the plane of said first-mentioned imprinting element capable of imprinting the name of the government imposing the tax, a means for inking both of said imprinting elements, a counter on said frame, a means for operatively connecting said arm to said counter, and a mechanism operatively connected to said counter capable of locking said frame portion to said base portion against relative movement after said counter has registered a predetermined figure.

7. In a device of the class described, a base portion, a frame portion vertically slidably mounted on said base portion, a means for yieldingly holding said frame in the upward position of its sliding movement, a stationary imprinting element on said frame capable of imprinting indicia designating the merchandise being taxed and the number assigned to the merchant, an arm vertically slidably mounted on said frame, a means for yieldingly holding said arm in the downward position of its sliding movement, a second imprinting element on said arm and nor-

mally in a plane below the plane of said first-mentioned imprinting element capable of imprinting the name of the government imposing the tax, a means for inking both of said imprinting elements, a counter on said frame, a means for operatively connecting said arm to said counter, a mechanism operatively connected to said counter capable of locking said frame portion to said base portion against relative movement after said counter has registered a predetermined figure, and a handle member secured to said frame portion to facilitate the manual sliding movement of said frame.

ERIC F. BROWN.