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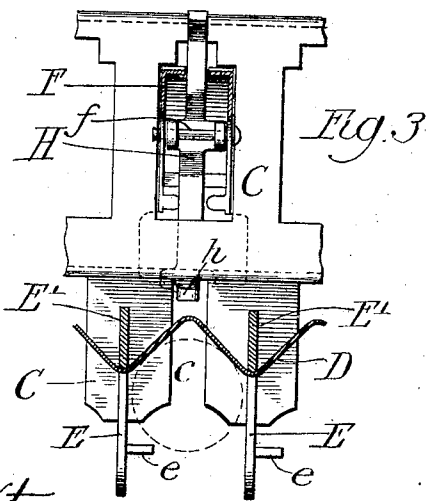
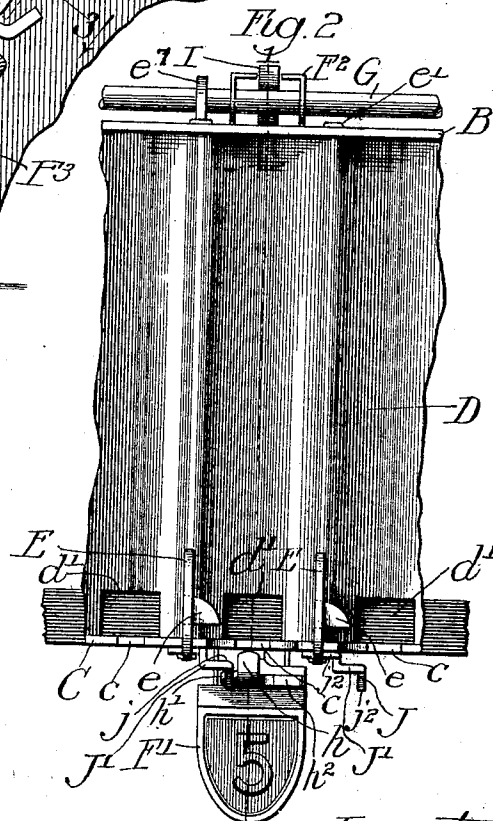
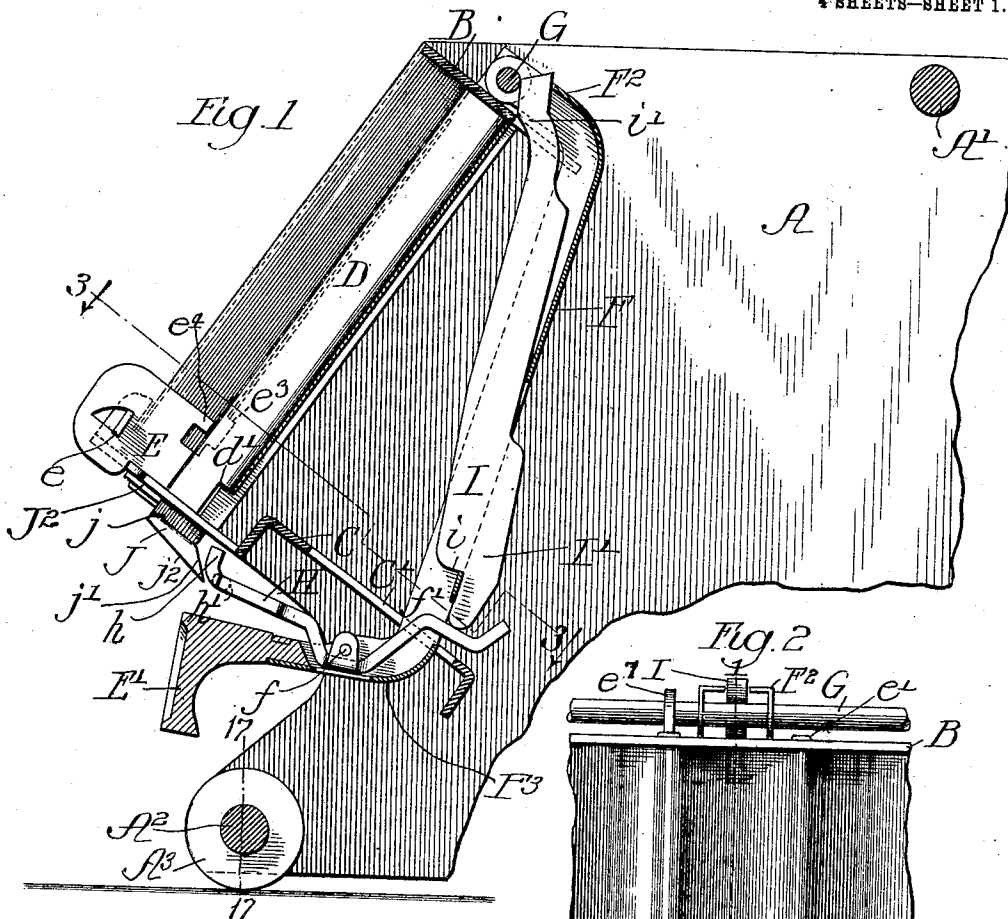
PATENTED AUG. 7, 1906.

J. W. MEAKER.

COIN HOLDING AND DELIVERING MACHINE.

APPLICATION FILED JULY 20, 1904.

4 SHEETS—SHEET 1.



Witnesses:
H. G. Barrett
George Raymond Wilkins

Inventor:
John W. Meeker:
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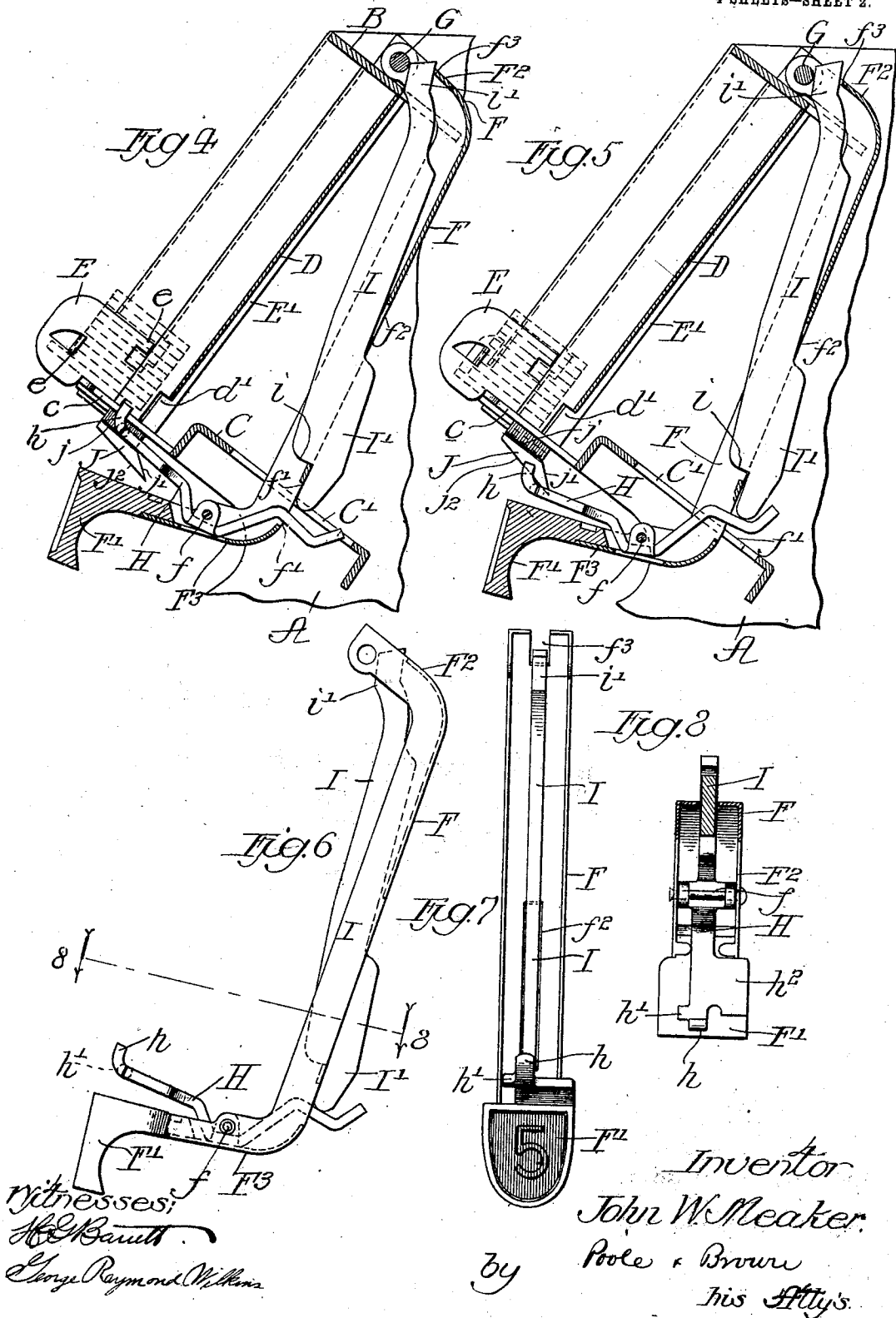
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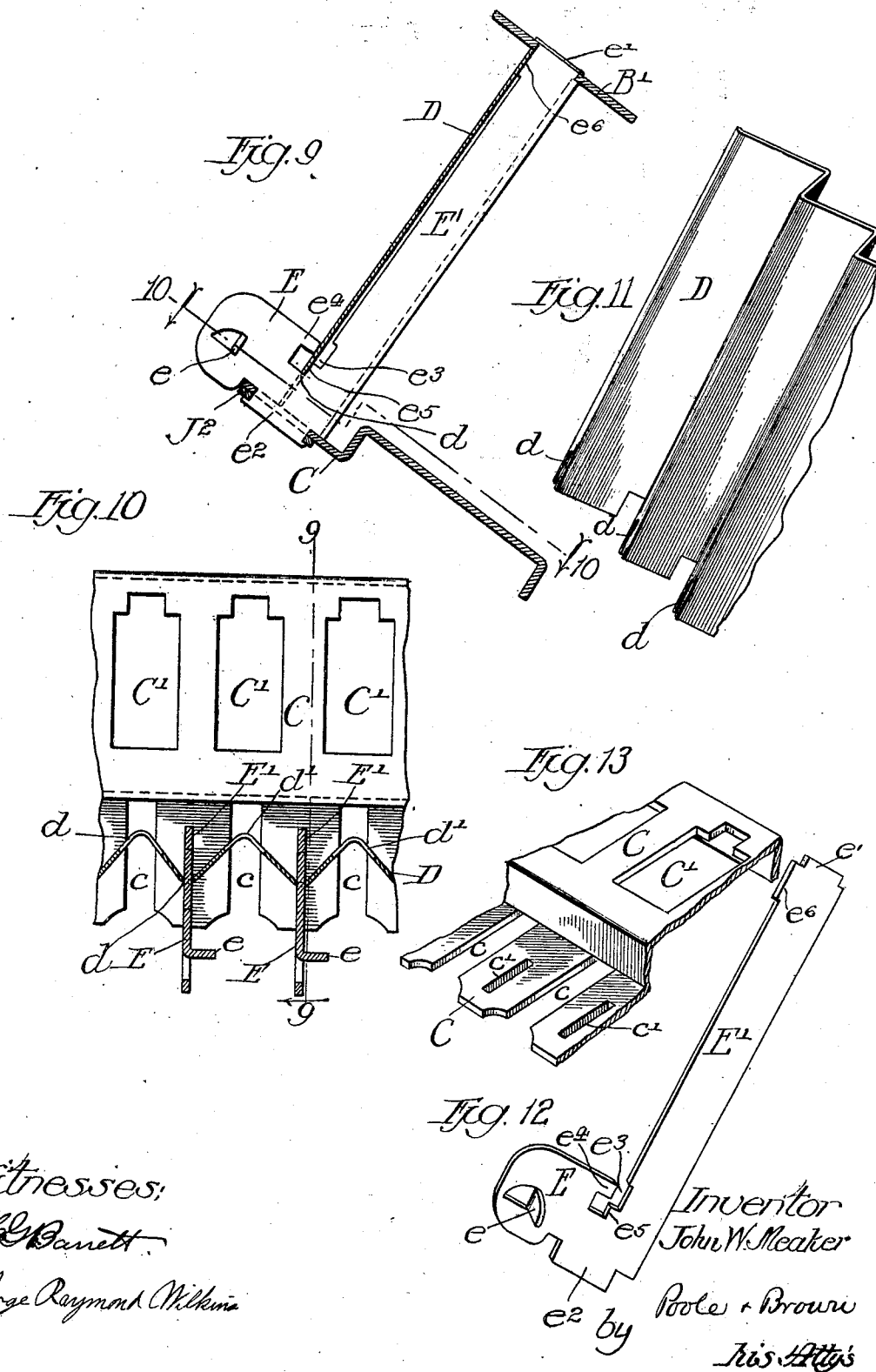
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Witnesses:

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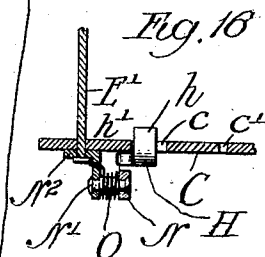
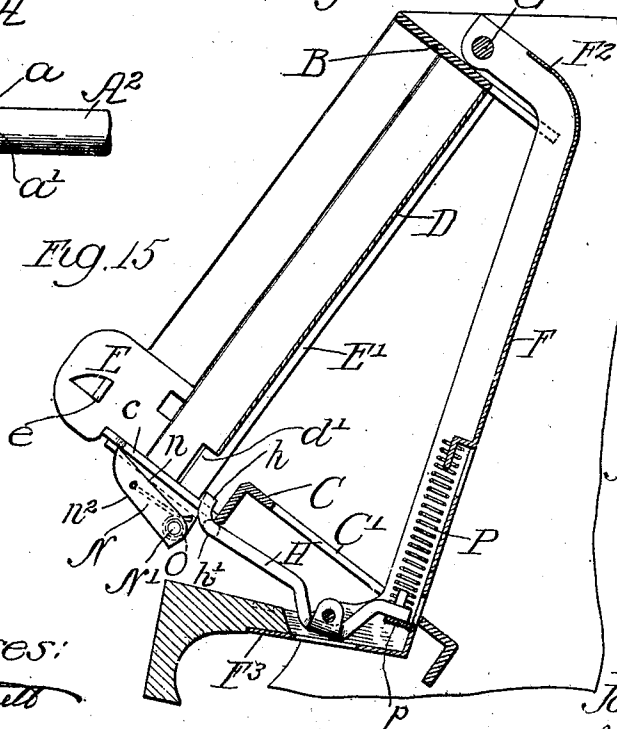
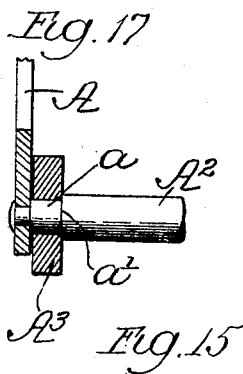
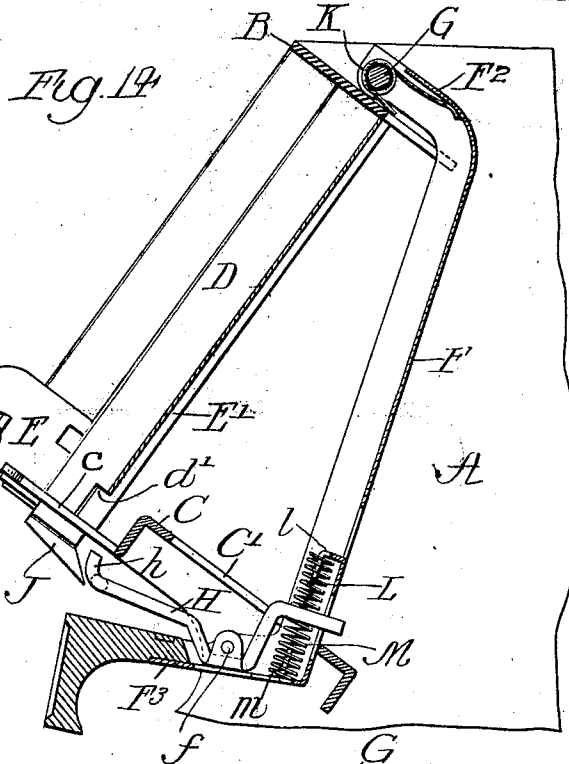
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Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN W. MEAKER, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO MEAKER SALES COMPANY, A CORPORATION OF MICHIGAN.

COIN HOLDING AND DELIVERING MACHINE.

No. 827,985.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed July 20, 1904. Serial No. 217,318.

To all whom it may concern:

Be it known that I, JOHN W. MEAKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coin Holding and Delivering Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a coin holding and delivering or change-making machine of that kind illustrated and described in United States Letters Patent No. 790,218, granted to me May 16, 1905, the same having a plurality of coin-receiving receptacles or grooves adapted to hold stacks or piles of coins, together with a series of keys, one for each of said receptacles or grooves, which keys are adapted to severally actuate a series of coin-ejecting fingers adapted to eject from the receptacles or grooves the lowermost coins of the piles of coins therein.

The object of my invention is to improve the construction of such machines in various particulars, as will hereinafter appear.

The invention consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a view in vertical section of a machine embodying my invention, taken through one of the coin-holding grooves of the machine on the line 1 1 of Fig. 2. Fig. 2 is a face view of one of the coin-receiving grooves and the coin-ejecting devices associated therewith. Fig. 3 is a detail plan section taken upon line 3 3 of Fig. 1. Figs. 4 and 5 are sectional views similar to Fig. 1, showing changed positions of the parts therein illustrated. Fig. 6 is a side view of the coin-ejecting lever shown in Figs. 1, 2, and 3 separate from the other parts. Fig. 7 is a face view thereof. Fig. 8 is a detail sectional view of the coin-ejecting lever, taken upon line 8 8 of Fig. 6. Fig. 9 is a detail sectional view of the top and bottom and corrugated plate which constitute the coin-holding receptacles, taken on line 9 9 of Fig. 10. Fig. 10 is a plan section of the parts shown in Fig. 9, taken on line

10 10 of said Fig. 9. Fig. 11 is a perspective view of part of the corrugated plate. Fig. 12 is a perspective view of one of the connecting-strips by which the top and bottom plates are joined to each other. Fig. 13 is a perspective view of a part of the bottom plate. Fig. 14 is a sectional view corresponding with Fig. 1, showing a modified construction in means for giving movement to the coin-ejecting lever. Fig. 15 is a section like Fig. 1, showing still another modification of the coin-ejecting devices. Fig. 16 is a detail front view of the cam-plate shown in Fig. 15. Fig. 17 is a detail section taken on line 17 17 of Fig. 1, showing the connection between the end frame-plate and one of the cross-rods of the machine-frame.

As shown in the said drawings, A indicates one of two vertical parallel end frame-plates, which are rigidly connected with each other by cross-rods, two of which are indicated by A' and A², said end frame-plates and cross-rods constituting the main frame by which the operative parts of the machine are supported.

B indicates a top frame-plate, and C a bottom frame-plate. Said plates B and C extend across the front of the machine between the end frame-plates with their front margins horizontal and parallel with each other, the plates being inclined from their said front margins downwardly and rearwardly and the front margins of the top plate being located rearwardly of the front margins of the bottom plate. D indicates a corrugated plate which extends across the front of the machine between the said top and bottom plates with its grooves or corrugations extending from its upper to its lower edge, said corrugated plate being arranged at an inclination with its upper margin rearwardly of its lower margin. The forwardly or outwardly facing grooves of the corrugated plate D constitute the coin-holding grooves or receptacles of the machine. The bottoms of said receptacles, by which are supported the piles of coins placed in the said grooves, are formed by the front marginal part of the bottom plate C, which extends forward of the lower margin of the corrugated plate and which is provided with curved notches located severally in front of the grooves and

with transverse slots *c c* extending inwardly from the said notches for the passage of the coin-ejecting fingers, as hereinafter described.

The top and bottom plates B and C are rigidly attached to the corrugated plate D, and said three plates are supported on the main frame of the machine and constitute a rigid secondary frame by which the coin-ejecting devices are sustained.

Above the forward part of the bottom plate C between the several coin-receiving grooves in the corrugated plate D are located vertical partition-plates E E, which project forwardly from the angles of said corrugated plate between the grooves and are provided at or near their forward ends with stop lugs or projections *e e*, which project laterally from said plates E E toward the center lines of the several grooves. Said lugs or projections *e e* are intended to prevent the delivery at one time from the lower ends of the grooves (by the action of the ejecting or delivering devices, hereinafter to be described) of more than one or a desired number of coins. The lower edge of the stop projection *e* in the case of a groove from which it is desired to eject one coin only at a time will be located at a distance above the top surface of the bottom plate C equal to the thickness of the coin which that particular groove is intended to receive. In the drawings the groove illustrated is designed for the ejection of one coin, and the lower edge of the stop projection *e* is therefore located at a distance above the top surface of the bottom plate equal to the thickness of a single coin. If, however, it be desired that two, three, or more coins be ejected at once from the groove, said stop projection *e* will be located a distance above the top surface of the bottom plate equal to the combined thickness of the number of coins which are to be ejected at one time from the groove.

As shown in the drawings, the partition-plates E E are formed in one piece with and constitute forward projections upon the lower end of connecting-strips E', located in vertical planes parallel with the end frame-plate and extending between the top plate B and the bottom plate C. The upper ends of said connecting-strips fit against the lower surface of the forward part of the top plate B, and their lower ends fit against the front marginal part of the bottom plate C between the slots *c c*, while the front margins of said connecting-strips extend into the angles of the corrugated plate D behind said plate and between inwardly-bent portions thereof, Figs. 9, 10, 11, and 12. Said connecting-strips E' are provided with tongues *e'*, which extend through transverse slots in the top plate B and are upset or riveted at their ends to fasten the upper end of said connecting-strips rigidly to said top plate. At their lower ends

the connecting-strips E' are provided with similar tongues *e'*, which extend downwardly through transverse slots *c'*, Fig. 13, in the bottom plate C and which are likewise riveted or upset at their ends to secure the strip E' rigidly to said bottom plate. At the angles between the top edges of the partition-plates E and the forward edges of the connecting-strips E' are formed downwardly-extending notches *e'*, adapted to receive the lower marginal part of the corrugated plate, while said corrugated plate is provided with notches *d d*, Fig. 11, which extend upwardly from the lower margin of said corrugated plate where the same intersect the partition-plates, so that said parts interfit in the manner clearly shown in Fig. 10.

So far as described the parts of the machine above referred to are made like the corresponding parts illustrated in Letters Patent No. 790,218, hereinbefore referred to. The parts as herein illustrated, however, embody improved features of construction, as follows: The partition-plates E instead of terminating at their forward edges in line with the stop projections or lugs *e* are extended forwardly of said lugs and project outwardly from the front edge of the bottom plate C, the purpose of this construction being to better guide the coins and hold them from any lateral or sidewise movement as they are ejected from the coin receptacles or grooves. When the partition-plates terminate in line with the stop projections *e*, the coins are sometimes liable to be retarded at one side or the other as they are thrown outwardly—as, for instance, by the rubbing of the rough edge of a new coin on the bottom of the stop projection—so as to be thrown sidewise instead of dropping vertically; but by extending the partitions forward in the manner illustrated in the accompanying drawings the coins will be guided from movement as long as they are under the influence of the ejecting devices and no such sidewise throwing of the coins can occur.

When the partition-plate E is extended forward of the lug *e* in the manner hereinbefore described, I preferably form the lug *e* by cutting or punching a hole in the outer end of said plate E and bending the cut-out metal laterally to form said lug *e* in the manner clearly shown in the drawings, Figs. 9 and 10.

As illustrated in said prior application, the notch *e'* at the angle between the partition-plate E and the connecting-strip E' was made of the same width as the thickness of the plate D and so narrow as to present difficulties in shaping the plate by punching. As shown in the accompanying drawings, I make the notch *e'* of considerable width and so large that it may be punched without difficulty by the punching tool and die used to give shape to the entire piece. I so shape

the notch as to form adjacent to the top edge of the partition-plate a prong e^4 , having rearwardly-facing end surface adapted to contact with the front face of the plate D. I also shape the rear margin of the said notch near its bottom in such manner as to form projection e^5 , having a forwardly-facing shoulder adapted for contact with the rear surface of the plate D. When the parts are assembled, as seen in Fig. 9, the rearwardly and forwardly facing margins of the parts e^4 e^5 bear against the front and rear surfaces of the plate D, and thereby hold the parts in engagement in the same manner as would a narrow slit or slot wide enough only to receive the lower edge of said plate D.

In order to facilitate the fitting of the parts, the front edge of the connecting-strip is cut away, so that it will be free from contact with the plate D in its part above the notch e^3 , excepting at the upper end of the strip, where the same is provided with a forwardly-extending lug e^6 , which bears or fits against the rear surface of the plate D.

Now referring to the devices for ejecting the coins from the several grooves or receptacles, these will be alike for all of the coin-receiving grooves, and one only is shown in the accompanying drawings. The main part of the coin-ejecting device consists of a pivoted actuating-lever F, arranged with its lower end adjacent to and beneath the lower end of the coin-groove and pivoted at its upper end to the top plate B, said lever being arranged to extend at its main or central part behind or at the rear of the said plate D. By reason of the rearward inclination of the said plate D as a whole the lower end of the said actuating-lever F extends forward of the pivotal axis of the said lever, so that said lower end tends to swing downwardly and rearwardly by its own weight or gravity. At its lower or forward end the lever is provided with a depending part or key F', beneath and behind which the finger may be placed for drawing the actuating-lever forward. Said key F' is preferably made of some considerable weight and desirably of cast metal, so that the gravity of said finger-piece will aid in effecting a rapid or prompt backward movement of the actuating-lever when the latter is released. As preferably constructed the said actuating-lever F is provided at its upper part with a forwardly-bent portion F², which extends over the top plate B and which is provided with a bearing-aperture to engage a horizontal pivot-rod G, which extends longitudinally of the top plate B above the same. Said pivot-rod G may be supported by engagement with apertures formed in upward extensions of the tongues e' on some of the connecting-strips E'. The drawings show the said pivot-rod as passing through an upward extension e^7 of the tongue

e' of one of the two connecting-strips illustrated. At its lower end the said actuating-lever F is provided with a forwardly bent or extended portion F³, arranged generally at right angles to the main or body part of the lever and which extends beneath the bottom plate C and to the forward end of which the finger-piece F' is attached. The said actuating-lever F is shown as extending through a guide-slot C', formed in the bottom plate C, said lever having bearing against the side edges of said slot by which it is held from lateral movement when swinging on its pivot.

On the lower or forwardly-extending part F³ of the lever F is pivoted a coin-ejecting lever H, having at its forward end an upwardly-extending ejecting-finger h , adapted to project through the slot c in the bottom plate C. The ejecting-finger is adapted when in its elevated position to extend far enough above the bottom plate to engage a coin resting thereon, and when it is desired that any one of the grooves should be adapted for the discharge of more than one coin at a time the finger will be made long enough and will extend above the bottom plate a sufficient distance to engage two, three, or more coins at once, as desired. The plate D is provided above the slot c with a notch d' for the passage of the ejecting-finger, which latter in its forward movement rises through the slot c at a point behind or near the said plate D. Said ejecting-finger H is pivotally connected at a point between its ends, by means of a pivot-pin f , to the said forwardly-extending part of the actuating-lever, and the rear end of said ejecting-lever is extended past or rearwardly of the pivot f and is adapted for engagement with a sliding weight I, which is mounted on the actuating-lever and acts to press downwardly on the rear end of the said ejecting-lever, so as to yieldingly hold the forward end of the same, which bears the ejecting-finger at an intermediate point of its throw. The downward movement of the said weight is limited by a stop on the actuating-lever, and the said ejecting-lever is made heavier at its forward than at its rear end, so that when the forward end of the said ejecting-lever is free from contact with any other part its rear end will press upwardly against the weight and its forward end will stand at a point between the upper and lower limits of its possible movement.

Attached to the lower surface of the bottom plate C at one side of the path of the forward end of the ejecting-lever H is located a cam-plate J, arranged in a vertical plane parallel with the plane in which the ejecting-lever swings. Said cam-plate is provided on its top edge near its forward end with a cam-surface j , arranged parallel with the bottom plate C, and at the rear part of its top surface

with a downward and rearward inclined cam-surface j' . The lower edge of said cam-plate is shaped to form a rearwardly and downwardly inclined surface j^2 . Said cam-plate J is supported from the bottom plate by means of a rigid supporting-arm J' , arranged in offset relation, Fig. 2, with the cam-plate and preferably made integral with the said cam-plate and with a base-plate J^2 , which rests in contact with the lower surface of the bottom plate C and is preferably secured thereto by extending the tongue e^2 on the lower end of the connecting-strip E' downwardly through both the bottom plate and said base-plate and riveting the lower end of said tongue against said base-plate, Fig. 9. The ejecting-lever H is provided near its forward end with a laterally-extending guide-finger h' , Figs. 2 and 8, adapted for contact with the upper and lower margins of the said cam-plate J.

The downward movement of the weight I on the actuating-lever is, as before described, limited by a suitably-arranged stop, and said stop is so located that said weight when resting at the lower limit of its movement will stand in position to hold the rear end of the ejecting-lever so far depressed and its forward end lifted sufficiently to bring the finger h' above the lowermost or rear end of the inclined top surface j' of the cam-plate J. Said inclined surface j' is located at the rear of the rear edges of the coins in the receptacle, so that when the finger h' engages said surface in the forward movement of the actuating-lever the ejecting-finger will be lifted high enough to strike the rear edge of the lowermost coin before the said ejecting-finger reaches the coin. It follows that when the actuating-lever is drawn forward the weight will hold the ejecting-lever in position for engagement of its finger h' with the said inclined surface j' of the cam-plate at the beginning of said forward movement, but as the forward movement continues the finger will ride upwardly on said cam-surface j' until the ejecting-finger is lifted sufficiently to engage the rear edge of the lowermost coin in the receptacle and will then slide forwardly along the cam-surface j' . The rear end of the ejecting-lever at this time will be below and free from the weight, while the ejecting-finger h' will slide or move forwardly through the slot in the bottom plate C and will move in a path parallel with the said bottom plate. The forward end of the said ejecting-lever being weighted or made heavier than its rear end, said forward end when unrestrained by the cam-plate will tend to drop by gravity until said rear end is brought into contact with the said weight, the result being that as soon as the finger h' passes forwardly of and is free from the cam-plate J the said forward end of the ejecting-lever will drop far enough to bring the said finger below the forward end

of the cam-plate, when its further movement will be arrested by contact of its rear end with the weight. When the actuating-lever is released and allowed to return to its original position or said actuating-lever swings backwardly, said finger will ride downwardly on the lower cam-surface j^2 of the cam-plate, thereby depressing the forward end of said actuating-lever and lifting the weight above the stop on which it rests or by which its downward movement is limited. As soon as said finger h' has passed rearwardly from the cam-plate J the weight I, acting downwardly on the rear end of said ejecting-lever, will lift the forward end thereof until the finger h' is again brought above the level of the rear end of the cam-plate and in position to again engage the rear cam-surface j' thereof in the next forward movement of the actuating-lever.

As a result of the construction above described the actuating-finger on the coin-ejecting lever will as the actuating-lever is drawn forward be moved upward until in position to engage the lowermost coin, will then be guided in a path parallel with the bottom plate while engaged with the coin and while acting to push the same from its place beneath the pile of coins, and will after the ejection of the coins be drawn downward by the action of the lower cam-surface of the cam-plate, so that it will be entirely free from contact with the lowermost coin in its backward movement. The movement of the coin-ejecting finger is thus made positive and said finger will as it is moved forward invariably engage the rear edge of the lowermost coin regardless of the rapidity with which the parts are operated. Moreover, in the return movement of the actuated lever said finger will be free from contact with the lowermost coin, and is thus prevented from lifting from place or disturbing the position of the lowermost coin in the receptacle. In prior constructions, in which the cam-ejecting finger is thrown upwardly by a spring or weight and rides over the lowermost coin in its return movement, the lowermost coin is liable to be lifted and thrown out of place by the upward pressure of the finger in such backward movement at times when one or two coins only are left in the receptacle; but by the construction herein described liability of such lowermost coin being thrown out of place by the returning finger is entirely avoided.

In order that the movement of the lower end of the actuating-lever and the pivot of the ejecting-lever about the pivot-rod G may have a minimum effect upon the movement of the ejecting-finger as the same moves forward in the act of ejecting the coin, it is preferable that the central axis of the pivot-rod G should be located approximately on a line drawn at right angles to the top surface j of

the cam-plate J and passing through the center of the length of such surface j .

It is to be noted that the main purpose or function of the cam-plate J is to elevate the ejecting-finger into position to effect its initial engagement with the rear edge of the lowermost coin and to depress said finger so that it will be free from contact with the said coin in its rearward movement. It is not, however, necessary that the top surface j of said cam-plate should be extended parallel with the bottom plate B for any considerable distance forward of the upper or forward end of the inclined surface j' , for the reason that the end of the ejecting-finger h' being nearer the pivot-rod G than the pivot f of said ejecting-lever the ejecting-finger after it has become engaged with the rear edge of the coin cannot become disengaged therefrom except by a downward and forward movement in a curved path, and as such downward and forward movement will be prevented by its contact with the coin any disengagement of the said finger from the coin after it has once engaged the same and has begun to move the coin forward is very unlikely to occur.

It follows from the above that when the parts are arranged as illustrated the presence of the forward portion of the cam-surface j is not necessary for maintaining the ejecting-finger in contact with the coin throughout its forward movement. In other words, said forward part of the surface j is not required to secure movement of said ejecting-finger in a path parallel with the bottom plate, for the reason that in the particular arrangement of the parts shown the ejecting-finger tends to remain in engagement with the coin after it has once been engaged therewith. It is also to be noted that in the particular arrangement of the parts illustrated the jar due to the impact of the actuating-lever when it strikes the bottom plate in its return or backward movement or the rebound following such impact has no tendency to throw the forward end of the ejecting-lever downward, but, on the contrary, tends to throw it upward, and thereby maintain the guide-finger h' above the rear end of the cam, so that there will be no liability of the jarring action due to the arrest of the actuating-lever at the end of its return or backward movement throwing the said guide-finger into position to pass below the cam in the next forward movement of the actuating-lever.

Now, referring to the details illustrated in the actuating-lever and the weight thereon, these parts, as herein shown, are made as follows: The said actuating-lever is made of metal bent into U form to give it stiffness and having its side flanges directed forwardly in the main body or part of the lever and upwardly and downwardly in the upper and

lower forwardly-extending parts thereof. The ejecting-lever is pivoted to the actuating-lever by means of the pivot-pin f , which extends through the side flanges of the lower forwardly-extending part of the actuating-lever and through upwardly-bent ears or lugs on the ejecting-lever. The rear end of said ejecting-lever is bent upwardly and then rearwardly and extends through a slot f' in the rear part or web of the actuating-lever. The forward end of said ejecting-lever is shown as provided with a lateral extension h^2 , Fig. 8, which is added merely to give weight to the forward end of the lever sufficient to hold its rear end pressed upwardly against the weight I. The finger h' and the lateral projection h^2 extend beneath the bottom plate C at the sides of the slot c , and thus serve to limit the upward movement of the front end of the ejecting-lever as the coin-ejecting finger moves forwardly through the said slot. The weight I is shown as having the form of a flat bar having a rearwardly-offset portion I' at its lower end, which extends rearwardly through a slot f^2 , formed centrally in the web portion of the actuating-lever above the slot f' , hereinbefore described. Said slot f^2 forms a guide by which the lower end of the weight is held or guided in vertical movement. Said weight is provided at its front edge near its lower end with a downwardly-facing shoulder i , adapted for contact with the lower end of the slot f^2 to limit the downward movement of said weight, as hereinbefore described. The offset lower part I' of the weight extends downwardly below said shoulder at the rear of the actuating-lever, and its lower end is adapted to bear upon the rear arm of the ejecting-lever H. At its upper end the bar constituting the weight I terminates in an upwardly-extending guide-arm i' , which passes through a guide-slot f^3 , formed in the web portion of the actuating-lever at its upper end. Said guide-arm i' on the weight is arranged in such position as to bear at its forward edge against the pivot-rod G, while the rear edge of said arm bears against the inner edge of said notch f^3 , which said inner edge of the notch is located a distance rearwardly from the pivot-rod equal to the thickness of the guide-arm, so that the said guide-arm may slide up and down between the pivot-rod and the inner edge of the slot and will be held or guided in its movement by said parts.

By the construction described in the actuating-lever, ejecting-lever, and weight I not only may these parts be readily and economically made by punching and stamping operations, but they require no rivets or fastening devices to hold them in place other than the pivot f , which joins the ejecting-lever to the actuating-lever.

In Fig. 14 I have shown a modified con-

struction in the coin-ejecting devices, wherein the parts are constructed and arranged generally as hereinbefore described, but in which springs are employed instead of depending on gravity to effect the rearward movement of the actuating-lever and to operate the ejecting-lever. As shown in said Fig. 14, a coil-spring K is placed around the pivot-rod G, with its arms bearing against the top plate B and the actuating-lever F in such manner as to tend to throw the lower end of said lever rearwardly. As shown in said Fig. 14, moreover, instead of using a weight on the actuating-lever to depress the rear end of the ejecting-lever and weighting the forward end of said ejecting-lever to throw its rear end upwardly I employ two coiled springs L M, located, respectively, above and below the rear end of the ejecting-lever H and bearing upwardly and downwardly upon the same. The spring L is shown as engaging a forwardly-extending arm *l* on the actuating-lever F, the free end of which arm is bent downwardly to form a prong which enters the upper end of said spring, while the spring M bears against the top surface of the forwardly-extending portion F³ of the lever and is engaged by an upwardly-bent prong *m* thereon. The springs L M are of equal strength or tension and so disposed as to hold the ejecting-lever normally in position with the finger *h'* somewhat above the lower rear end of the cam-plate J.

The operation of the device illustrated in Fig. 14 will manifestly be the same as that hereinbefore described—that is to say, the ejecting-finger *h'* is thrown upwardly by the action of the cam-surface *j'* as the actuating-lever is drawn forward, and when such finger *h'* passes forward of the cam-plate J the front end of the actuating-lever is depressed by the action of the spring M, so as to bring said finger *h'* below the forward end of the lower cam-surface *j*², so that in the backward return of the actuating-lever the forward end of the ejecting-lever will be drawn downwardly by the action of the said cam-surface *j*² to carry the ejecting-finger below the lowermost coin. After the finger *h'* passes to the rear of the cam the spring L will then throw upwardly the forward end of the ejecting-lever and restore the finger *h'* to its original position above the level of the rear end of the cam-plate, when the parts will be in readiness for the delivery of another coin.

In Figs. 15 and 16 I have shown still another modification in the construction of the coin-ejecting devices, wherein a movable instead of a stationary cam-plate is used to give movement to the ejecting-lever. In this instance the rear end of the ejecting-lever H is held yieldingly in contact with an upwardly-facing stop *p* on the actuating-lever F by means of a downwardly-acting spring P,

said stop being so located that the ejecting-finger *h'* will be held normally elevated and in position to engage the lowermost coin in the receptacle. A cam-plate N is used in this instance, which cam-plate is mounted on a pivot-stud N', attached to a bracket N², fastened to the bottom plate by the tongue on the connecting-strip E'. Around said pivot-stud N' is placed a coiled spring O, one end of which is connected with the cam-plate N in such manner that it tends to throw the forward end of the cam-plate upwardly and its rear end downwardly. When the actuating-lever F is at the rearward limit of its movement and the cam-plate stands in its normal position with its front end elevated and near or in contact with the bottom plate C, the forward end of the ejecting-lever will stand just below the bottom plate C, and the finger *h'* of the actuating-lever will be above the level of the rear end of the cam-plate. Said cam-plate in this instance is provided with cam-surfaces *n n*², corresponding with the cam-surfaces *j j*², hereinbefore described. As the actuating-lever is drawn forward the finger *h'* will strike the cam-surface *n*, depressing the forward end of the cam-plate through the yielding of the spring O until said finger *h'* passes from the forward end of the cam-plate, when the latter will rise or return to its normal position. In the rearward movement of the actuating-lever the finger *h'* will strike the lower surface *n*² of the cam-plate and in traveling rearwardly along said surface will depress the front end of the ejecting-lever until the finger *h'* passes the rear end of the cam-plate, when the spring P will return the ejecting-lever to its normal position with the ejecting-finger extending above the bottom plate. The parts will then be in position to be again operated as before.

As a separate and further improvement in a machine of the general character described I provide in connection with the lower cross-rod A² of the main frame and the side frame-plate A of this frame a construction shown in Figs. 1 and 17 and as follows: The end of said cross-rod, which is preferably of cylindrical form, is reduced in diameter to form a stem *a*, and the said stem is inserted through a hole in the frame-plate with the shoulder *a'* at the base of the stem a short distance from the frame-plate. Between said frame-plate and the shoulder on said rod is located a disk A³, preferably made of vulcanized fiber or like material, and which is apertured for the passage of the stem *a*. This disk is made of sufficient size to extend below the lower margin of the end frame-plate, so that it will form a foot or support for contact with the surface on which the frame rests. The end of the stem *a* is preferably riveted at the outside of the frame-plate to secure the end of the rod to said frame-plate and at the

same time to clamp the disk A³ between the shoulder on the rod and the inner face of said end plate.

I claim as my invention—

5 1. The combination with a coin-holding receptacle adapted for the forward discharge of coins from the lower end thereof, of coin-ejecting means comprising a main lever pivotally supported at the rear and above the
10 level of the bottom of said receptacle, said main lever having at its forward end a finger-piece, a pivoted, unbalanced coin-ejecting lever carried by said main lever, and a cam-plate adapted to act upon the said ejecting
15 means.

2. The combination with a coin-holding receptacle adapted for the forward discharge of coins from the lower end thereof, and provided with a slotted bottom wall, of coin-
20 ejecting means comprising a main lever pivotally supported at the rear and above the level of the bottom of said receptacle, said main lever having at its forward end a finger-piece, a pivoted, unbalanced coin-ejecting lever carried by said main lever and provided at its forward
25 end with a coin-ejecting finger, adapted to extend upwardly through said slot in the bottom plate, and a cam-plate adapted to act upon the said ejecting-lever.

3. The combination with a coin-holding receptacle adapted for the forward discharge of coins from the lower end thereof, of coin-ejecting means embracing a forwardly and rearwardly moving actuating member, an
30 ejecting-lever pivoted to said actuating member and provided with an ejecting-finger, a cam-plate adapted to act upon said ejecting-lever to elevate and depress the ejecting-finger, and means yieldingly holding said ejecting-lever at an intermediate point in its move-
35 ment.

4. The combination with a coin-holding receptacle adapted for the forward discharge of coins from the lower end thereof, of coin-
40 ejecting means comprising a pivoted actuating-lever, an unbalanced ejecting-lever pivotally mounted on the said actuating-lever and provided with an ejecting-finger, a separate weight carried by the actuating-lever and adapted and arranged to act temporarily
45 on the lighter end of the ejecting-lever to depress the latter to a limited extent, and a cam-plate adapted and arranged to act upon the said ejecting-lever to throw the ejecting-finger thereof upwardly in the forward move-
50 ment of the actuating-lever and downwardly in the rearward movement of said actuating-lever.

5. The combination with a coin-holding receptacle adapted for the forward discharge of coins from the lower end thereof, of coin-
55 ejecting means embracing a pivoted actuating-lever, an ejecting-lever pivoted to said actuating-lever and provided with an eject-

ing-finger at its forward end, a weight carried by and movable with the actuating-lever and adapted to act upon the ejecting-lever to
65 elevate the forward end of the same, a cam-plate having cam-surfaces adapted to engage the ejecting-lever to elevate and depress the
70 ejecting-finger, and a stop on the actuating-lever for limiting the downward movement of said weight.

6. The combination with a coin-holding receptacle having a slotted bottom plate on which the coin in the receptacle rests, of coin-
75 ejecting means embracing a pivoted actuating-lever, an ejecting-lever pivoted to said actuating-lever and provided with an ejecting-finger adapted to extend through said slot in
80 the bottom plate, a cam-plate having cam-surfaces adapted, in the forward movement of the actuating-lever, to lift the ejecting-finger in the rearward movement of the actuating-lever to depress said finger, and a weight
85 carried by and movable on the actuating-lever, said actuating-lever having a stop to limit the downward movement of said weight when the ejecting-lever is at an intermediate
90 point in its throw, and the forward end of the ejecting-lever being weighted to hold its rear end in contact with said weight.

7. A coin-receptacle comprising a corrugated plate, a bottom plate which extends forwardly from the lower margin of the cor-
95 rugated plate, partition-plates extending forwardly from the corrugated plate at either side of one of the grooves therein, above the said bottom plate, said partition-plates being provided with laterally-extending stop pro-
100 jections or lugs, the lower edges of which are above the level of the bottom plate, and said partition-plates extending forwardly past or outside of the said stop projections or lugs.

8. The combination with a top plate, a bot-
105 tom plate and a corrugated plate forming a plurality of coin-receiving grooves or receptacles, of an actuating-lever, a pivot-rod for the actuating-lever, and connecting-strips extending between and secured to the top and
110 bottom plates, one of said connecting-strips being extended above said top plate to support said pivot-rod.

9. The combination with a top plate, a bot-
115 tom plate and a corrugated plate forming a plurality of coin-receiving grooves or receptacles, of connecting-strips at the rear of the corrugated plate, and partition-plates extending forwardly of said corrugated plate and made integral with the connecting-strips, said
120 partition-plates being provided with notches to receive the lower edge of the corrugated plate, which notches are wider than the thickness of the corrugated plate and provided with forwardly and rearwardly facing
125 shoulders for contact with said corrugated plate.

10. The combination with an end frame-

plate, of a cross-rod having a reduced part or
stem at its end adjacent to the frame-plate,
which stem is inserted through and received
in the frame-plate and an apertured disk or
5 washer which is held in said stem adjacent to
the plate and projects below the lower edge of
said plate to form a foot for the frame.

In testimony that I claim the foregoing as

my invention I affix my signature, in presence
of two witnesses, this 9th day of July, A. D. 1904.

JOHN W. MEAKER.

Witnesses:

C. CLARENCE POOL,
GERTRUDE BRYCE.