J. A. ROGERS.

COIN ASSORTER.

APPLICATION FILED JULY 28, 1917.

1,327,357.

Patented Jan. 6, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

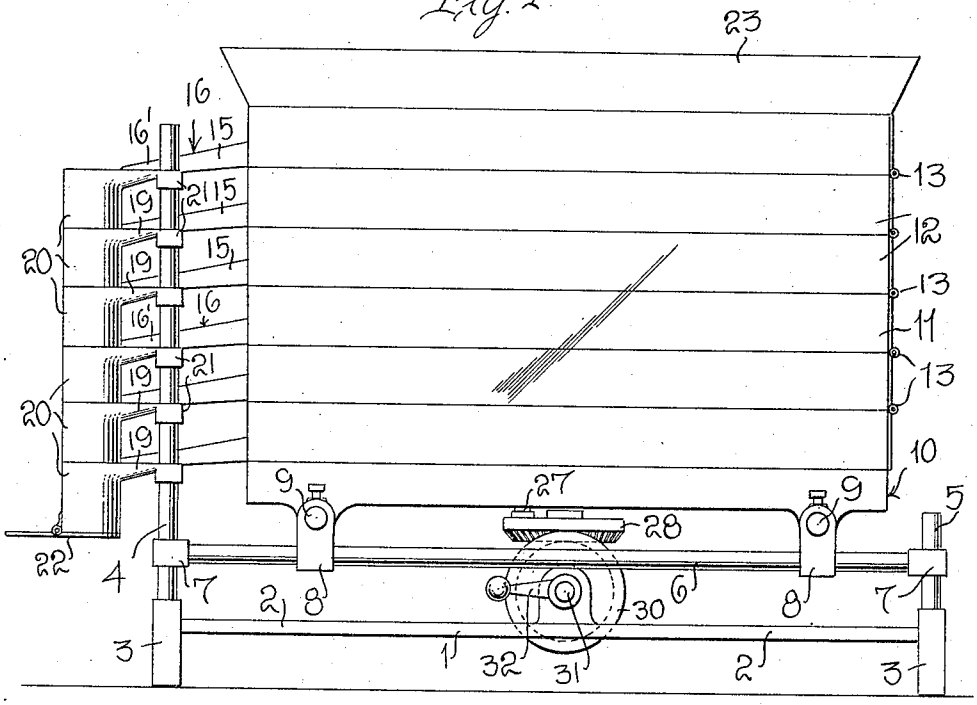
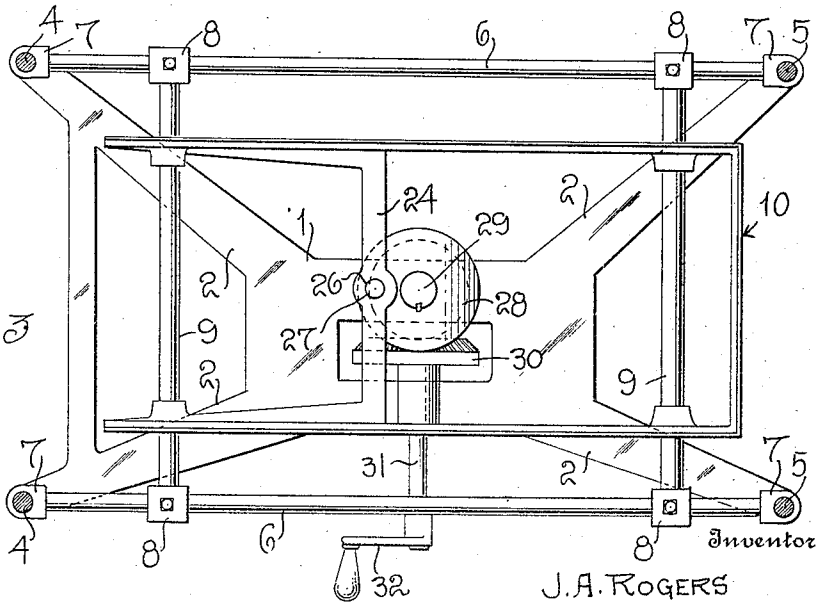


Fig. 3.



Inventor

J. A. ROGERS

By Shreve, Crowe & Gordon.

Attorney

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2 SHEETS—SHEET 2.

Fig. 2

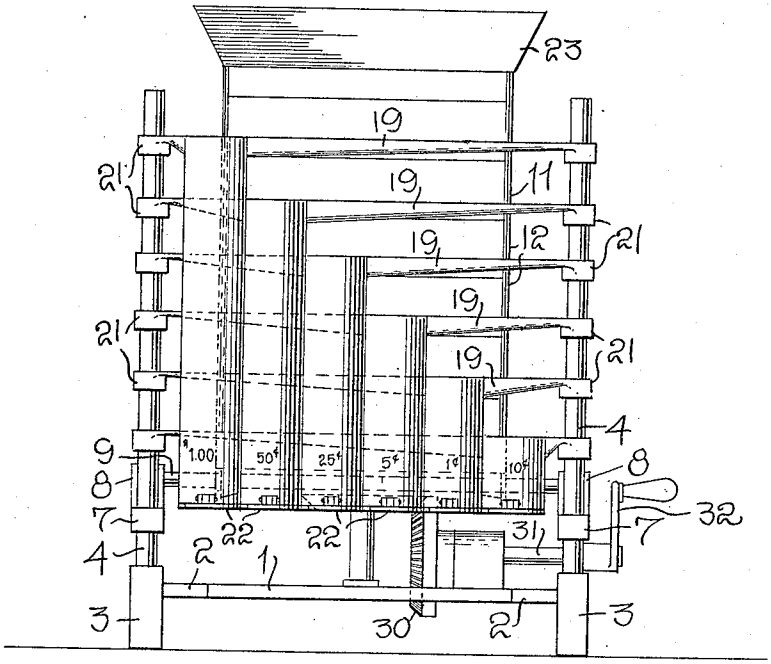


Fig. 4

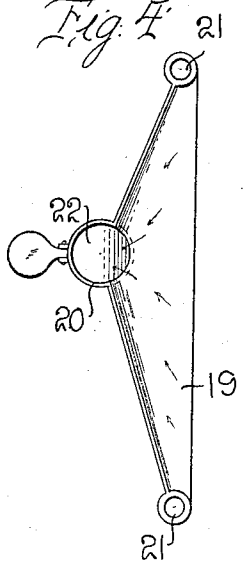
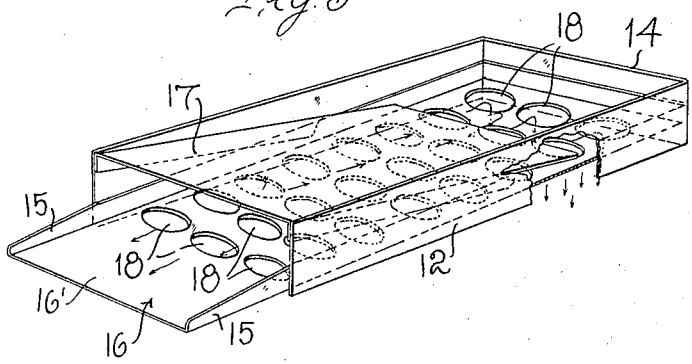


Fig. 5



Inventor

J. A. ROGERS

By Howson, Crowell & Gordon

Attorney

UNITED STATES PATENT OFFICE.

JOHN A. ROGERS, OF ATLANTA, GEORGIA, ASSIGNOR TO HENRY S. COHEN, OF MARIETTA, GEORGIA.

COIN-ASSORTER.

1,327,357. Specification of Letters Patent. **Patented Jan. 6, 1920.**

Application filed July 28, 1917. Serial No. 183,334.

To all whom it may concern:

Be it known that I, JOHN A. ROGERS, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented new and useful Improvements in Coin-Assorters, of which the following is a specification.

This invention while relating generically to coin handling machines comprehends more specifically an apparatus constructed to accurately and rapidly assort coins of various sizes and denominations.

The principal purpose of this invention is to design an apparatus through the instrumentality of which a conglomeration of different sized coins may be expeditiously separated and directed to suitable receivers, wherein they are segregated according to denominations.

Another distinguishing feature of this invention resides in providing a series of superposed perforated courses, through which the different sized coins are sifted, each course corresponding to a specific denomination and terminating in a depository.

Other features of note embraced by this invention are: the mechanism by which a mass of mixed coins is subjected to a constant gyratory movement, producing the agitation necessary to effect proper assorting; a novel means for directing the coins as precipitated to the upper end of each course; and a convenient arrangement of the several courses in order to afford ready access thereto when occasion demands.

With these and other objects in view, this invention consists in certain novel details of construction, combination and arrangement of parts to be more particularly hereinafter set forth and claimed.

Briefly stated, this invention comprises a movable carriage having a substantially rotary movement and surmounted by a column of assorting sections, each consisting of a coin chute coöperating with a perforate course in the form of a tray adapted to extract coins of a specific denomination dependent upon their size, and direct the same to depositories communicating with their lower ends, the coins during the process of assorting being agitated by mechanism acting in conjunction with the movable carriage.

Referring more particularly to the drawings, in which corresponding parts are indicated by similar reference characters:

Figure 1 is a side elevation of my improved coin assorting machine;

Fig. 2 is an end elevation thereof;

Fig. 3 is a top plan view partly in section, with the column of trays removed;

Fig. 4 is a top plan view of one of the coin depositories, and apron connecting with the upper end thereof; and

Fig. 5 is a perspective view illustrating one of the assorting sections.

In a great many commercial establishments, where coins are handled in large quantities, and the smaller denominations are continually pouring in, rapid assorting is an extremely important factor, consequently, it is the aim of this invention to provide a simple machine of comparatively few parts, capable of handling coins *en masse*, and quickly segregating them according to their denominations.

In the illustrated embodiment characterizing this invention there is shown a spider-like base 1, the radial portions 2 of which, terminate in vertically disposed legs 3 having suitable sockets to accommodate standards 4 and 5.

Guide rods 6 parallelly extending between standards 4 and 5 have their extremities seated in anchoring blocks 7 adjustably secured to standards 4 and 5, said blocks being adapted to slidably mount bearings 8 supporting the transverse guide rods 9.

Slidably positioned upon rods 9 is a carriage 10 designed to support body 11 which preferably is built up of a series of column-wise arranged assorting sections 12 hingedly connected at their rear as at 13. Each section (of which there are six according to the prevailing order of coinage) comprises a frame 14 surrounding the upstanding flange 15 of a tray 16 positioned therein at an incline. The length of tray 16 slightly exceeds that of the frame to provide a protruding lower end 16′. Coöperating with tray 16 is a coin chute 17 extending from the upper edge of frame 14 downwardly to a point contiguous the upper end of said tray.

Trays 16 with one exception are formed with a series of regular spaced openings 18 through which may pass coins of certain denominations, in other words, the size of the openings in any particular tray are en-

tirely dependent upon the location of such tray in the column; for instance, the openings in the top tray are of a dimension to extract coins of the dollar denomination, while those of the succeeding trays are such as to eliminate coins of fifty, twenty-five, five, one, and ten cent value, the last being retained by the bottom tray which is imperforate.

The different denominations as assorted are directed down the various trays to the aprons 19 underlying their lower extremities 16', said aprons being provided with suitable eyelets 21, whereupon they may be positioned in vertically spaced relation on standards 4. Integral with the respective aprons 19 are the alining coin depositories 20 of varying heights for obvious reasons, and closed at their lower ends with spring pressed closures 22.

To expedite introductions of the coins body portion 11 is topped with a hopper-like mouth 23.

In order to impart a substantially rotary movement to body 11 carriage 10 is formed approximately centrally thereof with a cross-piece 24, having an opening 26 to receive the stud 27 vertically projecting from bevel-gear 28. This gear 28 is keyed to shaft 29 vertically journaled in base 1 and meshes with beveled gear 30 keyed to the horizontally extending shaft 31, upon the free end of which is an operating crank 32, as clearly shown in Figs. 2 and 3.

In practice the operation of this machine is as follows:

A mass of coins is poured into the hopper 23, upon contacting with coin chute 17 of the uppermost assorting section is directed to the upper end of the inclined course or tray 15, and as they descend this course those of the largest size or the dollar denomination are retained, while the smaller sized coins drop down through the perforations to the succeeding course which extracts the fifty-cent pieces; and this operation is repeated until the smallest or ten-cent pieces finally reach the imperforate bottom course. The respective denominations as separated are discharged onto the aprons 19 of depositories 20. After introducing the mass of coins, the operator rotates crank 32 to impart through mitering bevel-gears 28 and 30 a substantially rotary movement to the carriage 10 and the column of assorting sections supported thereby. This movement agitates the coins and causes their rapid gravitation to the different depositories for removal.

In conclusion it will be observed, that I have designed a coin assorting apparatus which is practical, efficient, simple in construction, and admitting of alteration to accommodate coins of a size other than the six denominations mentioned; assures a constant jarring and tumbling of the coins which not only influences their movement down the respective courses, but also materially assists in the process of separation.

Although in the foregoing I have set forth certain elements as best adapted to perform the functions allotted to them, nevertheless, it is to be understood that various minor changes as to form, substance, etc., may be resorted to, within the scope of the appended claims, without departing from or sacrificing any of the principles of this invention.

Having now described my invention, what I claim is:

1. In a coin assorter, the combination with a series of inclined perforated courses arranged in vertically spaced relation, each course being adapted to retain coins of a specific denomination, and a plurality of coin depositories coöperating with the several courses; of a carriage supporting said courses, and means for imparting an intermittent gyratory movement to said carriage comprising laterally offset parallelly extending guide members, bearing blocks slidably positioned upon said members, auxiliary guide rods arranged intermediate said bearing blocks and transverse of said guide members, said rods being adapted to support said carriage, and means for alternately sliding said bearing members and carriage, substantially as described.

2. In a coin assorter, the combination with a series of inclined perforated courses arranged in superposed and spaced relation, each course being adapted to retain coins of a specific denomination and terminating in a coin depository; of a carriage carrying said courses, and means to impart an intermittent gyratory movement to said carriage comprising parallel guides, bearing blocks slidably positioned thereon, auxiliary guides arranged intermediate said blocks and transverse of the parallel guides, said auxiliary guides being adapted to slidably support said carriage, and means for alternately sliding said carriage and bearing blocks over their respective guides, substantially as described.

3. In a coin assorter, the combination with a series of inclined perforated courses arranged in superposed and spaced relation, each course being adapted to retain coins of a specific denomination and terminating in a coin depository; of a carriage carrying said courses, and means to impart an intermittent gyratory movement to said carriage comprising parallel guides, bearing blocks slidably positioned thereon, auxiliary guides arranged intermediate said blocks and transverse of the parallel guides, said auxiliary guides being adapted to slidably support said carriage, a bevel-gear connected with said carriage, and a second gear meshing therewith, whereby to alternately slide said

carriage and bearing blocks over their respective guides, substantially as described.

4. In a coin assorter, the combination with a plurality of assorting sections arranged column-wise, each section embodying an inclined perforated tray corresponding to a specific denomination, and a plurality of coin depositories coacting with said trays; of a carriage supporting said sections, and means for imparting an intermittent gyratory movement to said carriage comprising parallel guides, bearing blocks slidably mounted thereon, auxiliary guides positioned intermediate said blocks and adapted to slidably support said carriage, a gear connected with the latter, and a second gear meshing with that first mentioned whereby to alternately slide said carriage and blocks over their respective courses, substantially as described.

J. A. ROGERS.

Witnesses:
HENRY S. COHEN,
WILL T. GORDON.