(No Model.) 2 Sheets—Sheet 1.

A. R. GÜNTHER.

COIN ASSORTING APPARATUS.

No. 502,715. Patented Aug. 8, 1893.

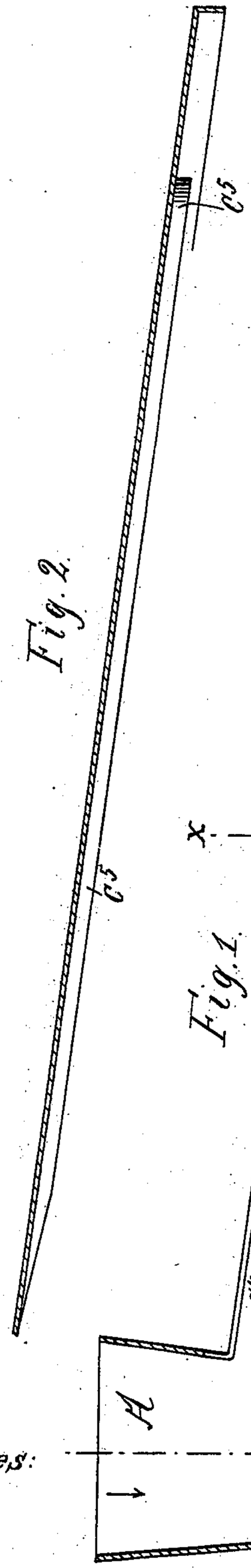

Fig. 2.

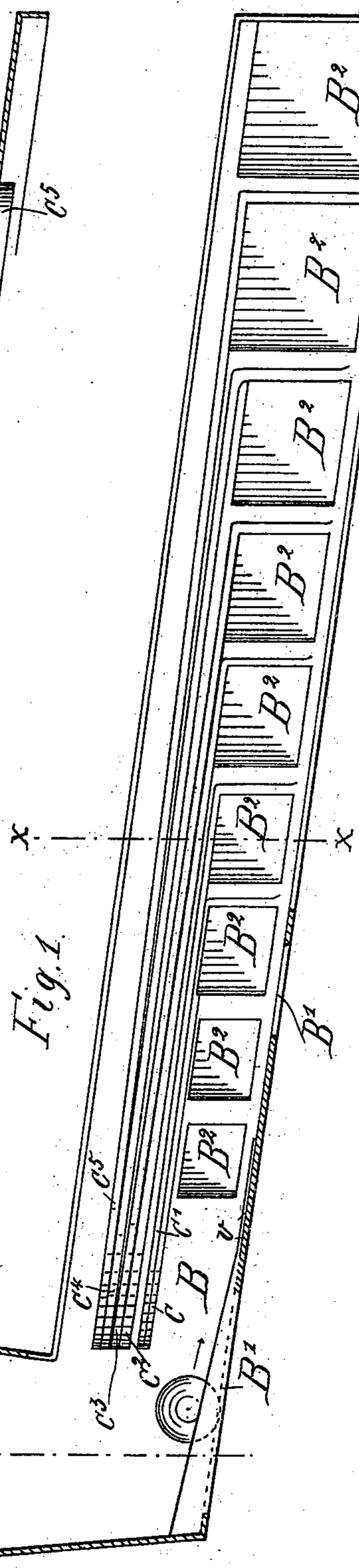

Fig. 1.

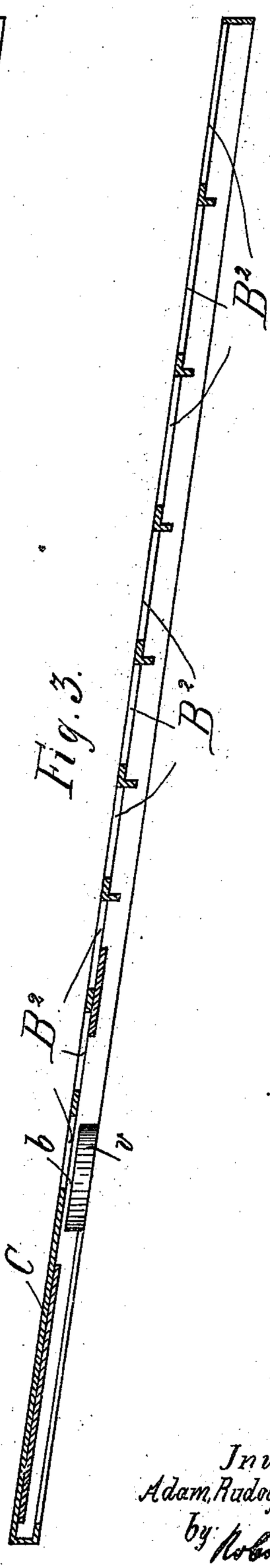

Fig. 3.

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(No Model.) 2 Sheets—Sheet 2.

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COIN ASSORTING APPARATUS.

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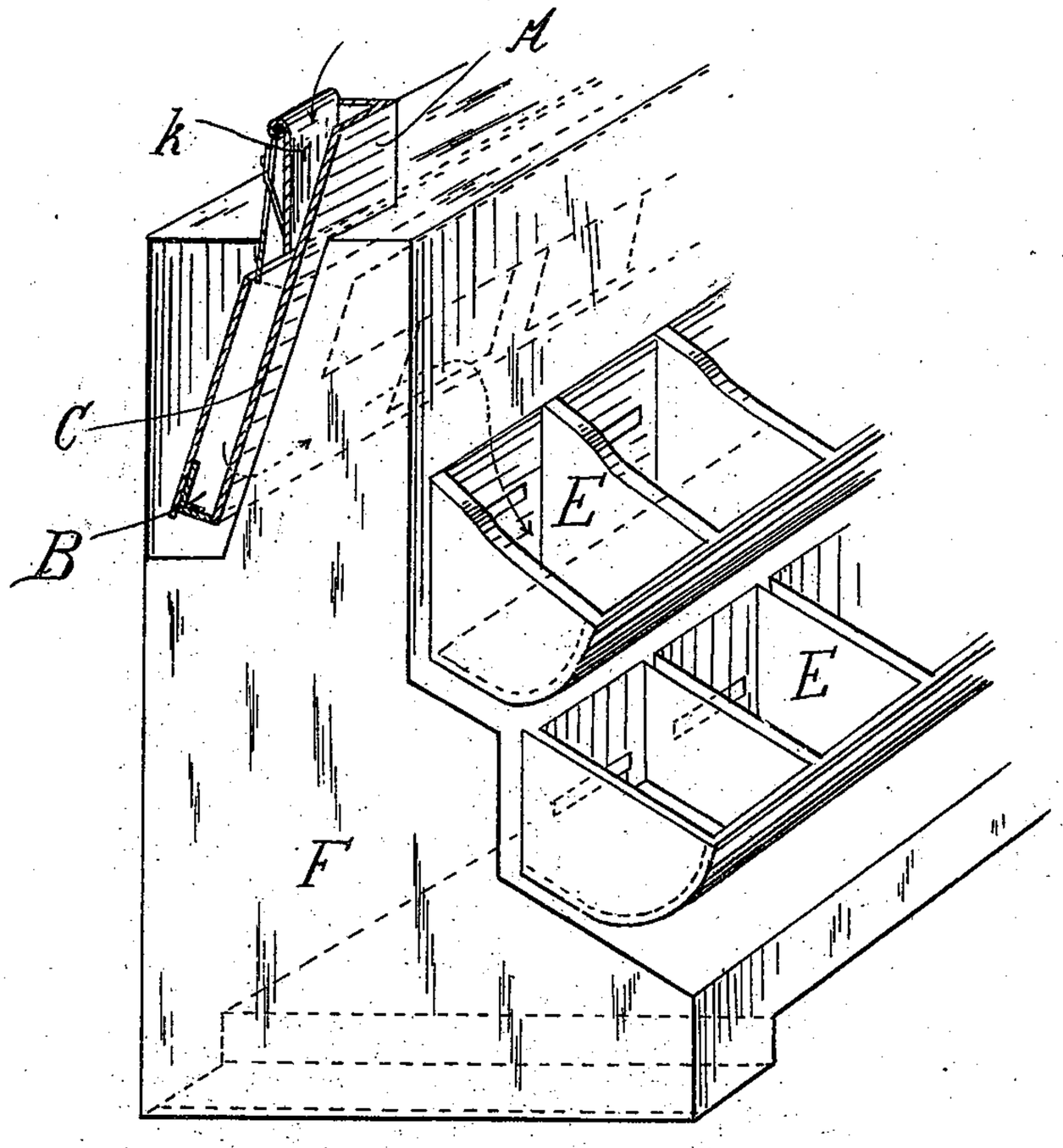
Fig. 5



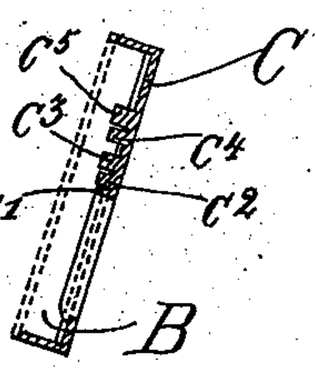
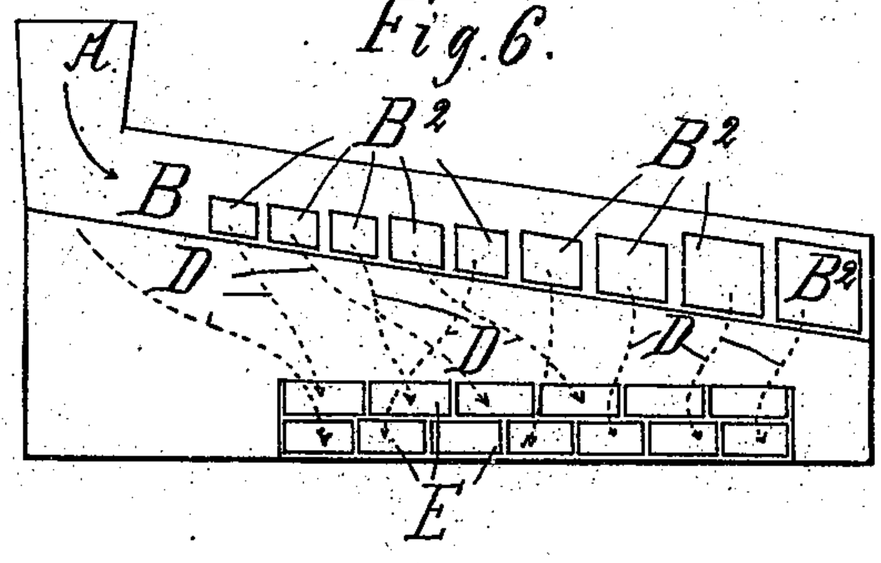


Fig. 4.

Fig. 6.



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UNITED STATES PATENT OFFICE.

ADAM RUDOLF GÜNTHER, OF BERLIN, GERMANY.

COIN-ASSORTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 502,715, dated August 8, 1893.

Application filed November 18, 1892. Serial No. 452,437. (No model.) Patented in Germany August 29, 1889, No. 52,005.

To all whom it may concern:

Be it known that I, ADAM RUDOLF GÜNTHER, a subject of the King of Prussia, German Emperor, and a resident of Berlin, in the Kingdom of Prussia, German Empire, have invented a certain new and useful Improvement in Coin-Assorting Apparatus, (for which I have obtained a patent in Germany, No. 52,005, dated August 29, 1889,) of which the following is a full, clear, and exact specification.

My invention relates to a coin-assorting apparatus in which the coins are caused to roll along an inclined channel in the side wall of which are provided a series of holes of different sizes, so that the coins are assorted according to their diameter; holes may also be provided in the bottom of the channel.

My invention also consists of means for utilizing the different thicknesses of coins having equal diameters for assorting them, as will be more fully described farther on, and pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of my improved apparatus; Fig. 2 a plan showing one of the guiding laths employed in my apparatus; Fig. 3 a sectional plan of the said apparatus; Fig. 4 a cross-sectional elevation taken on line x—x of Fig. 1; Fig. 5 a perspective view of a portion of the apparatus, and Fig. 6 a diagram showing the path of the coins to their respective receptacles.

The apparatus consists of a suitable frame F at the top of which is provided the chute A through which the coins are introduced. An inclined longitudinal channel B is provided within the frame F, the upper end of the incline being located underneath the chute A. A spring-actuated plate k, hinged to the top of this chute, is normally in contact with the front wall C of the chute and channel, this wall being inclined forward. The bottom of the channel B is provided with holes B′ corresponding with the diameter of certain coins, and other apertures B^2 of different sizes are provided in the front wall C, the size of these apertures increasing from the upper end of the channel B toward its lower end. From each of the openings B′ or B^2 a chute D leads into one of the collecting receptacles or boxes E, which are located in front of the frame F. A series of guiding laths or rails c c' c^2 c^3 c^4 c^5 are arranged nearly parallel to the inclined channel B and above the same, the lower end of each guide-lath is bent downward so as to form a stop immediately after the openings B^2. A small plate v is secured at the bottom of channel B near one of the holes B^2. This plate v does not however cover the entire breadth of the bottom, but leaves a small channel b along the front wall C.

The operation of my improved apparatus is as follows: The coins being introduced into the top of chute A are pressed against the front wall C by the spring-actuated plate k and pushing this plate aside glide along the front wall C and fall to the bottom of the channel B. The coins hereafter roll on the incline along the front wall C and as they come in line with the opening B′ or B^2 which corresponds in width to the diameter of the coin, they drop through this opening. It will be obvious that the coins of large size will roll past the smaller holes in the upper portion of the channel B. The coin is prevented from rolling farther than the hole B^2 of corresponding size by the vertical end portion of the guide-lath c which forms a stop after this hole. It will be seen at Figs. 1 and 4 that the coins when beginning to roll on the inclined bottom of the channel B will fit exactly below the guide-laths c which will guide them to the respective openings B^2. If two sorts of the coins to be assorted are of equal diameter, but of different thickness, the thinner coin will roll through the narrow channel b, while the thicker coin will roll on the small plate v and will thereby be raised somewhat so that it may roll past the first of the holes B^2, through which the thinner coin will drop. The coins having dropped through one of the openings B′ or B^2 will glide downward in one of the chutes D and fall into the corresponding receptacle E. It will be obvious that each receptacle or box will only receive coins of one definite kind, so that the coins will be perfectly assorted. It will be understood that if the kinds of coins to be assorted are but few, the holes B′ may be omitted. Similarly, the plate v may of course be omitted if there are no two sorts of coins of equal diameter.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. In a coin-assorting apparatus, the combination, with a chute A, of an inclined longitudinal channel B having an inclined front wall C, and openings B^2 in this wall, the size of these openings decreasing gradually toward the chute A, of the guide-laths $c\ c'\ c^2 \ldots$ each terminating with a vertical portion after one of the openings B^2, the chutes D located below each of the openings, and the receptacles E provided at the lower ends of the chutes D, for the purpose set forth.

2. In a coin-assorting apparatus, the combination, with a chute A and a spring-actuated plate *k* hinged to the top of the same, of an inclined longitudinal channel B, having an inclined front wall C, and openings B^2 in this wall, the size of these openings decreasing gradually toward the chute A, of the guide-laths $c\ c'\ c^2 \ldots$ each terminating with a vertical portion after one of the openings B^2, the chutes D located below each of the openings, and the receptacles E provided at the lower ends of the chutes D, for the purpose set forth.

3. In a coin-assorting apparatus, the combination with a chute A and a spring-actuated plate *k* hinged to the top of the same, of an inclined longitudinal channel B, having an inclined front wall C, and openings B^2 in this wall, the size of these openings decreasing gradually toward the chute A, of a plate *v* arranged at the bottom of channel B near one of the openings B^2 in such a manner as to leave a narrow channel *b* along the front wall C, the guide-laths $c\ c'\ c^2 \ldots$ each terminating with a vertical portion after one of the openings B^2, the chutes D located below each of the openings, and the receptacles E provided at the lower ends of the chutes D, for the purpose set forth.

4. In a coin-assorting apparatus, the combination, with a chute A and a spring-actuated plate *k* hinged to the top of the same, of an inclined longitudinal channel B, having openings B′ in its bottom, an inclined front wall C, and openings B^2 in this wall, the size of these openings decreasing gradually toward the chute A, of a plate *v* arranged at the bottom of channel B near one of the openings B^2 in such a manner as to leave a narrow channel *b* along the front wall C, the guide-laths $c\ c'\ c^2 \ldots$ each terminating with a vertical portion after one of the openings B^2, the chutes D located below each of the openings, and the receptacles E provided at the lower ends of the chutes D, for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ADAM RUDOLF GÜNTHER.

Witnesses:
W. HAUPT,
LAD WELLACH.