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J. REUTHER

SAFETY TRANSFER APPARATUS FOR BANKS, ETC

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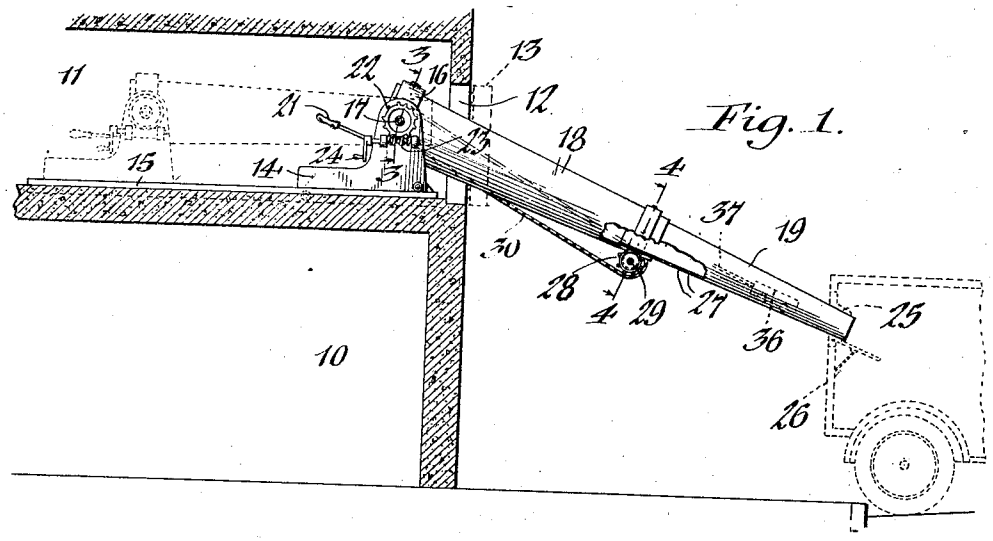


Fig. 1.

Fig. 2.

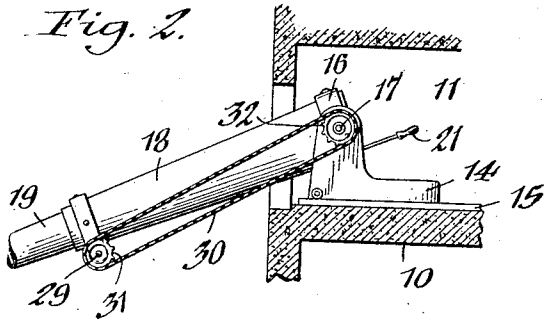


Fig. 3.

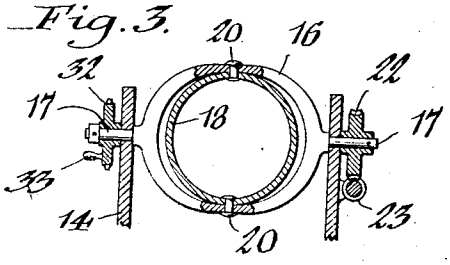
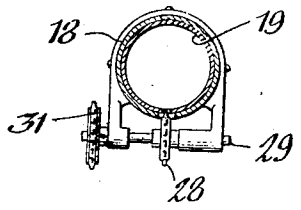


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SAFETY TRANSFER APPARATUS FOR BANKS, ETC.

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This invention relates to a transferring apparatus designed more particularly for safeguarding money and other valuables in conveying them from a bank or other building to a vehicle and vice versa.

Its chief object is to provide a simple, inexpensive and efficient apparatus of this character which will positively thwart attempted thefts during the delivery of valuables from one point to another.

Another object of the invention is the provision of a transfer apparatus which may be readily installed in banks and other buildings and which is so organized and arranged that it my be quickly moved to its operative and inoperative positions.

In the accompanying drawings: Figure 1 is a sectional elevation of an apparatus constructed in accordance with my invention. Figure 2 is a fragmentary elevation view showing the opposite side of the apparatus. Figures 3 and 4 are enlarged cross sections on the correspondingly numbered lines in Fig. 1.

Similar characters of reference indicate corresponding parts throughout the several views.

In the embodiment of the invention shown in Figs. 1–4 inclusive, 10 indicates a bank or similar building provided, for example, in the front or street side, preferably above the main floor, with a burglar-proof vault or room 11 in which the transfer apparatus is installed. This vault has a front opening 12 normally and securely closed by a suitable door 13 which is opened only when the apparatus is in service.

Contained in this vault for movement lengthwise thereof is a carriage 14 running on tracks 15. An oscillatory supporting ring or yoke 16 is journaled on this carriage and for this purpose is provided at diametrically opposite sides with trunnions 17. Attached at its rear end to the supporting ring is a transfer device preferably consisting of a pair of telescopic tubes 18, 19, the main tube 18 being pivoted at 20 to the top and bottom sides of said ring so as to have a limited lateral range of movement relative to the carriage. A suitable lever or handle 21 is attached to the rear end of the main tube to adjust the transfer device to the position desired. A worm wheel 22 is fixed to one of the trunnions 17 and meshes with a worm 23 journaled on the adjacent side of the carriage and having a crank 24 for turning it, although an electric or other motor may be employed for this purpose, if desired.

By mounting and constructing the transfer device in this manner, it can be readily moved toward and from its projected, operative position and be swung into a more or less inclined position to enter or register with an opening 25 in the side or rear end of an armored vehicle 26, as shown by full lines in Fig. 1; and it can also be swung laterally within a predetermined range to accommodate the position of the vehicle, which latter need not therefore be parked in direct line with the vault 11 of the building.

In order to move the telescopic tube 19 into and out of the main tube, a suitable mechanism is employed which may consist of a row of perforations 27 in the underside of said smaller tube, a pinion 28 mounted on a shaft 29 journaled in the adjacent rear end of the main tube and engaging said perforations, and a sprocket chain 30 running around a sprocket wheel 31 secured to said shaft and a sprocket wheel 32 loosely mounted on one of the yoke trunnions 17 and having a hand-crank 33 or other means for turning it.

By rotating the sprocket 31 in one direction or the other, the transfer tube may be correspondingly shortened or lengthened as required and it may be swung laterally by means of the handle 21. When not in use, the tubes of the transfer apparatus are telescoped and the carriage is drawn rearwardly into the vault, as shown by dotted lines in Fig. 1.

In the normal condition of the apparatus, the transfer tube is telescoped and the latter and its carriage are fully withdrawn into the vault 11, where they are invisible and inaccessible from the outside of the building and protected from the weather while not in service. In the use of the apparatus, the front foot of the vault is opened, the carriage is shifted forward and the transfer tube is extended and then swung up, down or sidewise to meet the opening 25 of the armored car 26, as shown. The lower end of the tube may be strongly anchored in the car to defeat any attempt of robbers to withdraw it from the car and steal the valuables.

The money or other valuables may then be conveyed through the tube into the vault or vice versa by a wheeled or other suitable carrier 36 having a cable 37 for drawing or lowering it through the tube.

The transfer device is a strong, metallic tube or passage-way, closed on all sides, and as it extends continuously from the armored vault into the armored car, the money and other valuables are absolutely inaccessible while being transferred, or loaded and unloaded, thus effectually safeguarding them from robbery.

I claim as my invention:—

1. A safety device for transferring valuables from a bank-building to a vehicle and vice versa, comprising a vault in said building having a door-opening, a track in said vault leading to said door opening, a carriage running on said track, a telescopic transfer tube mounted to swing vertically and laterally on said carriage, and means located in said vault for swinging said tube and withdrawing and extending its sliding member.

2. A safety device for transferring valuables from a bank-building to a vehicle and vice versa, comprising a vault within the bank building having a door-opening, a horizontally movable carriage within said vault, a vertically-swinging yoke journaled on said carriage, a telescopic transfer tube closed on all sides and fulcrumed at its rear end on said yoke to swing laterally relatively thereto, the front end of said transfer-tube being adapted to pass through said door-opening and communicate with the vehicle, and means located in said vault for operating said tube.

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