

March 22, 1932.

F. D. McCADDIN

1,850,114

MACHINE FOR DEALING AND SHUFFLING PLAYING CARDS

Filed June 4, 1929

2 Sheets-Sheet 1

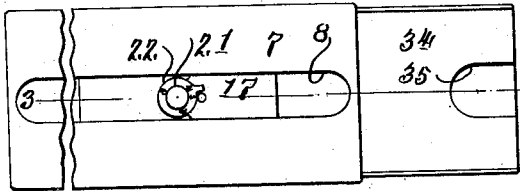


Fig. 2.

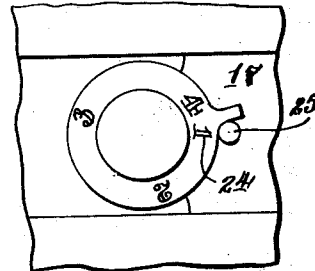


Fig. 4.

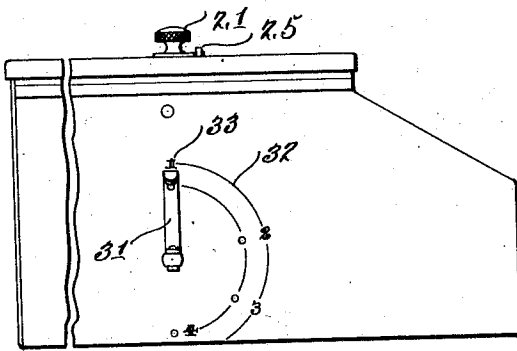


Fig. 1.

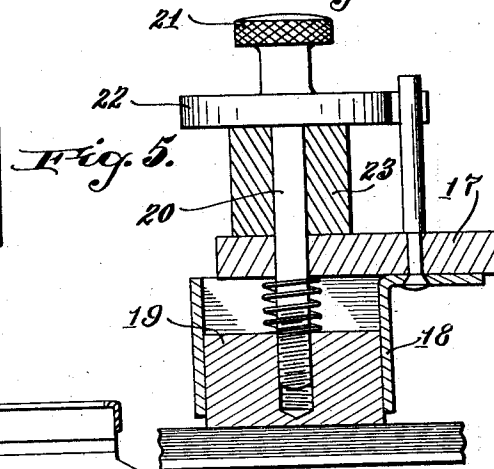


Fig. 5.

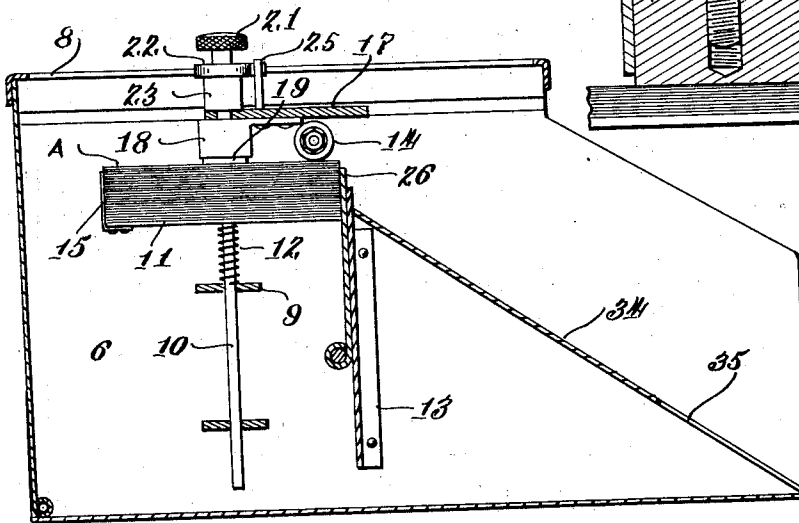


Fig. 3.

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2 Sheets-Sheet 2

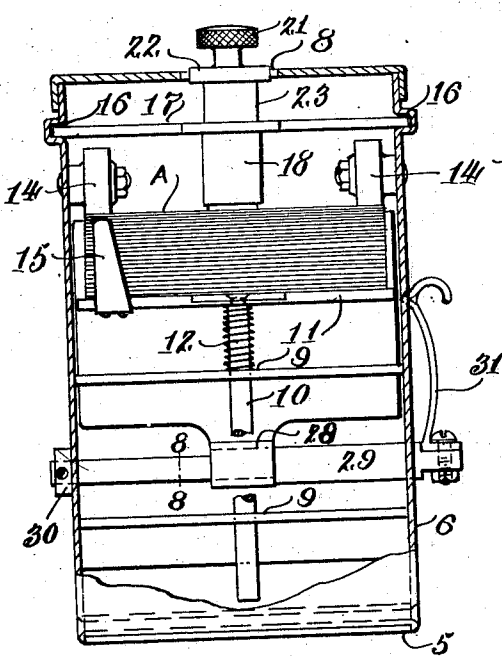


Fig. 6.

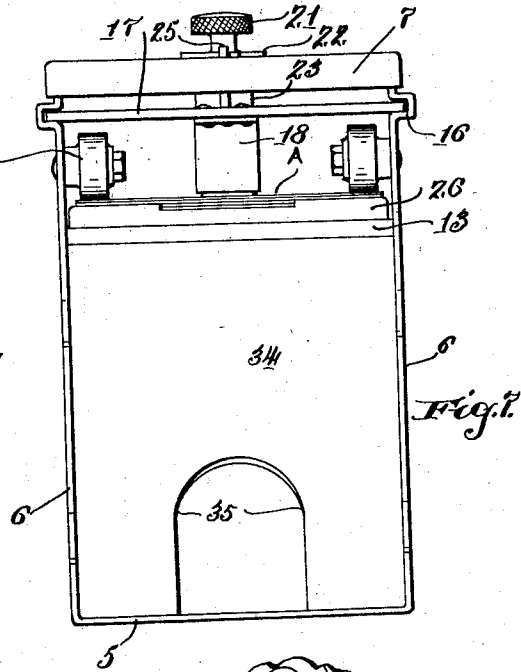


Fig. 7.

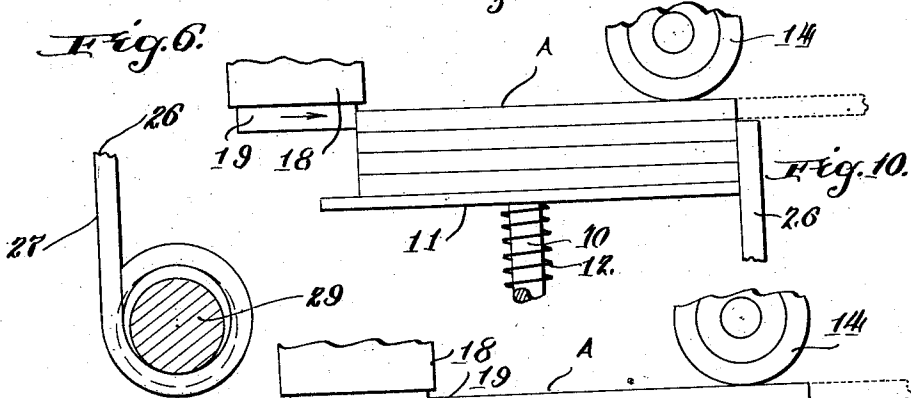


Fig. 8.

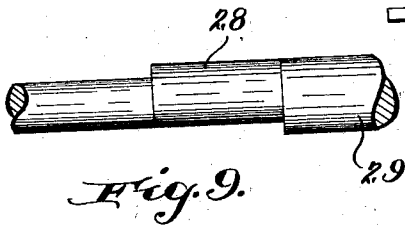


Fig. 9.

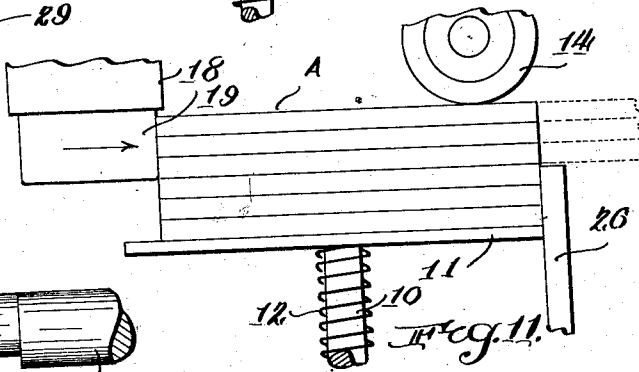


Fig. 10.

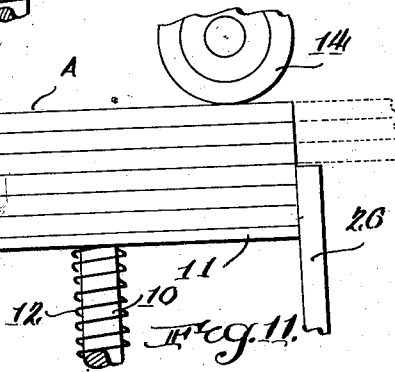


Fig. 11.

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## UNITED STATES PATENT OFFICE

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MACHINE FOR DEALING AND SHUFFLING PLAYING CARDS

Application filed June 4, 1929. Serial No. 368,224.

This invention relates to certain new and useful improvements in a machine for dealing and shuffling playing cards and has for its particular object the provision of a machine constructed so that playing cards may be dealt selectively or collectively in groups of pairs.

A further object of this invention is the provision of a machine embodying a casing equipped with a longitudinally sliding member, whereby playing cards may be dealt selectively or collectively at the will of the operator.

A further object of this invention is the provision of a machine embodying a casing and a sliding member, and means formed in the casing and sliding member, whereby the playing cards may be dealt either selectively or collectively.

A further object of this invention is the provision of a machine for dealing or shuffling playing cards in an accurate manner and it embodies a casing having a table therein, a sliding member associated with said table and casing, and means carried by the casing and sliding means, whereby given numbers of cards may be dealt at the will of the operator.

With these and other objects in view, the invention consists in certain novel features, combination and arrangement of parts as will be hereinafter more fully described, pointed out in the accompanying drawings, and claimed.

In the drawings,

Figure 1 is a side elevational view of my improved card dealer, as made in accordance with this invention;

Figure 2 is a top plan view of my improved invention;

Figure 3 is a transverse sectional view, taken on the line 3—3 of Figure 2;

Figure 4 is an enlarged detailed top plan view of the regulator of the card ejecting member;

Figure 5 is a detailed vertical sectional view of the card ejecting member;

Figure 6 is a rear transverse sectional view of my improved card dealer;

Figure 7 is a front elevational view of my improved card dealer;

Figure 8 is a detailed vertical sectional view of the adjustable card retainer;

Figure 9 is a fragmentary side elevational view of the eccentric shaft of the card retainer;

Figure 10 is a diagrammatical view, illustrating the relative position of the card ejector and retainer, showing them in position for handling one card selectively; and,

Figure 11 is a diagrammatical view of the card ejector and retainer, handling the playing cards collectively.

Referring to the drawings, my improved card dealer and shuffler comprises in its construction a casing made of metal or other material found suitable for the purpose, and this casing has a bottom wall 5 and integral side walls 6, and secured to the upper edges of the side walls is a top wall 7 provided with a longitudinally extending slot 8.

Secured to the inner side of one side wall 6 and extending laterally therefrom, are guide arms 9, in which is mounted a vertical shaft 10, provided on its upper end with a card holding table 11, and to maintain this card holding table in a relatively raised position, I provide a coil spring 12, which surrounds the upper end of the shaft 10 and is interposed between the under surface of the table 11 and the uppermost guide 9. This spring 12 permits the table to be vertically reciprocated or raised and lowered by a given pressure placed thereon.

A guide plate 13 is secured to the opposing inner faces of the side walls 6, and is arranged adjacent the front edge of the table 11. The upper edge of this plate 13 terminates adjacent the bottom surface of the ta-

ble, when it is in its upmost raised position, by action of the spring 12.

The table 11 is limited in its upward travel by virtue of bearings 14 secured to the opposing inner faces of the side walls 6, intermediate the ends thereof, and these bearings are in the form of rollers, so as to assist in a free and unobstructed action of the cards when being ejected from the table, as will be hereinafter more fully described.

The table is provided on its rear edge with a stop 15, which retains the playing cards "A" on said table and prevents them from being displaced accidentally therefrom rearwardly, as clearly shown in Figures 3 and 6 of the drawings.

The side walls 6 are provided adjacent their upper ends with longitudinally extending grooves 16, which are herein shown as being formed by pressing the material 6 laterally. These grooves 16 constitute tracks in which is mounted a longitudinally slidable card ejecting plate 17, and this plate has secured centrally to its underside, a housing 18, in which is vertically mounted a card ejecting block 19 and this block is vertically adjustable in said housing 18, by virtue of a shaft 20, which extends vertically through the card ejecting plate 17 and has its inner end screw threaded for engagement with the card ejecting block 19. The upper end of this shaft 20 has secured thereto a knurled head 21 and a dial plate 22, the dial plate being rotatable in the slot 8 of the cover 7 of the casing. Interposed between the card ejecting plate 17 and the dial plate 22 and connected therewith, is a casing 23, which surrounds the shaft 20 and permits the latter to be rotated by virtue of the knurled head 21, so as to adjust the block 19 inwardly or outwardly with respect to the housing 18.

The dial 22 is provided on its upper surface with suitable numerals 24, which numerals constitute the degree by which the block 19 is extended beyond the lower edge of the housing 18, and these numerals constitute the thickness of a card carried by the table 11. In other words, the numeral 1, when turned to engage a stop post 25 secured to the plate 17, and extending upwardly through the opening 8, represents that the card ejecting block 19 is extended to the required distance below the edge of the housing 18, so as to engage a thickness of playing cards equal to the thickness of a single card. When the dial plate 22 is turned to Figure 2, the block 19 is extending below the housing 18 to a depth sufficient to engage the thickness of two playing cards and so on as the numerals are brought around to the stop post 25.

It can be readily seen that this card ejecting block 19 engages the rear edge of the cards determined by the numerals to be ejected, and by sliding the same forward in the slot 8, that amount of cards engaged will be

immediately and quickly ejected from the machine.

Now to assure the retaining of the remainder of the pack of playing cards on the table 11 during the ejection of the required number from the top of the pack, there is provided between the side walls 6 a vertically movable card retaining plate 26. This plate 26 is interposed between the front edge of the table 11 and the opposing faces of the guide plate 13. The lower edge of this plate is provided centrally of its ends with a barreled extension 27, which is arranged about the eccentric portion 28 of a shaft 29 journaled transversely in the side walls 6 of the casing.

This shaft 29 is retained in position by securing to one end a stop nut 30, and its opposite end has secured thereto, a regulating arm 31. The free end of this arm 31 has contact with a quadrant 32, which quadrant has numbers depicted thereon and indicated by the numeral 33, and these numbers are identical with the numerals on the dial 22. Thus it follows, that when the dial 22 is set at the stop post 25 on the numeral 1, the arm 31 of the eccentric shaft 29 will also be arranged on the numeral 1. Thus the card holding plate 26 will be adjusted to engage the entire pack of cards with the exception of the uppermost one thereof, so as to permit the card ejecting block 19 to eject that card from the pack by longitudinal movement of the plate 17, through the medium of the knurled head 21 in the longitudinal slot of the cover 7 of the casing.

It can be readily seen that when a pack of cards is placed upon the table 11, that the cards are placed beneath the bearings 14, and by longitudinal movement of the plate 17 through the medium of the shaft 20, a given number of cards, according to the position of the dial and arm, 22 and 31, respectively, are set. will be ejected from the casing.

The front portion of the casing is provided between the side walls with a suitable slide 34, to receive and retain the cards, as they are ejected from the pack, and this slide 34 is provided in its rear end with an opening 35 so as to permit the cards to be readily removed from the casing, as desired.

In Figures 10 and 11, there is a diagrammatical illustration of the method in which a given number of cards is ejected from the pack and the remaining portion of said pack is retained on the table. It can be readily seen that when the dial 22 is fixed at the numeral 1 and the arm 31 is also fixed at the numeral 1, that the retaining plate 26 will engage the forward end of the pack with the exception of the thickness of one card, and the block 19 will be ejected below the housing 18 for a sufficient distance to engage a single card, and thus upon longitudinal movement of said device, said one card will be ejected. In Figure 11 there is a diagrammatical illustra-

tion of the same operation for three cards, and as the operations are identical, it is not believed that further description is warranted.

5 It is to be understood that various changes in forms and construction may be resorted to without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what

10 I claim as new is:

1. A card dealing device of the class described, including a casing, a card holding table mounted resiliently for vertical movement in said casing, a vertically movable card  
15 retaining plate mounted in said casing forward of said table, means for raising and lowering said plate at predetermined adjusted distances, a slide plate mounted in said casing above said table, means for reciprocating said  
20 plate, a card ejector carried by said plate, means associated with said card ejector whereby it may be adjusted to cooperate with said holder plate for ejecting a given number of cards, and means to retain the card ejector  
25 in its given adjusted position.

2. A card dealer and shuffler of the class described, comprising a casing, a table resiliently mounted for vertical movement in said casing, a card holding plate mounted for  
30 vertical movement in said casing forward of said table, an eccentric shaft supporting said plate for raising and lowering the latter by the rotation of said shaft, a gauge to regulate the movement of said plate connected with  
35 said shaft, a slide plate in said casing above said table, a handle associated with said slide plate for controlling the latter, a card ejector associated with said plate, and a controlling means associated with said slide plate and  
40 ejector whereby various adjustments to the ejector may be made to coincide with the holding plate so that a given number of cards may be dispensed from the table.

In testimony whereof he hereunto affixes  
45 his signature.

FRANCIS D. McCADDIN.

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