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F. W. NOTHAFT
CARD SHUFFLING DEVICE

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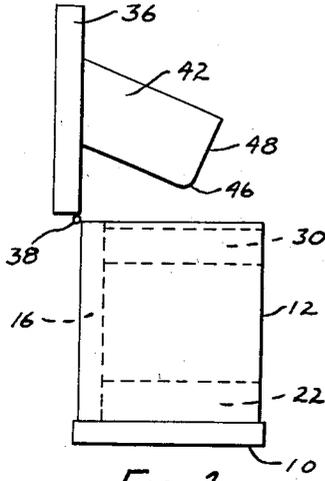


FIG. 1

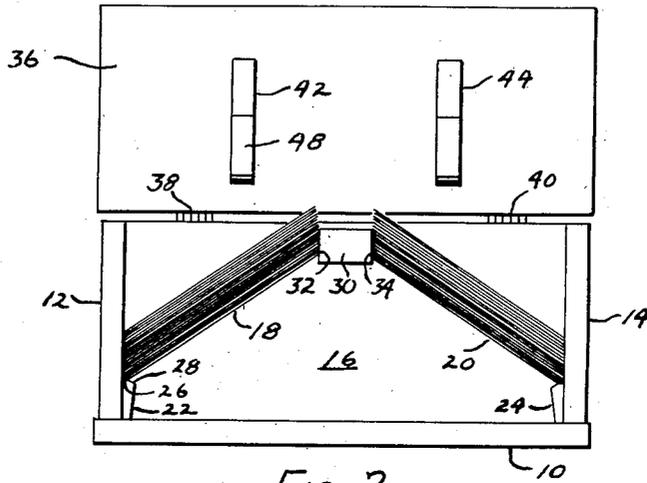


FIG. 2

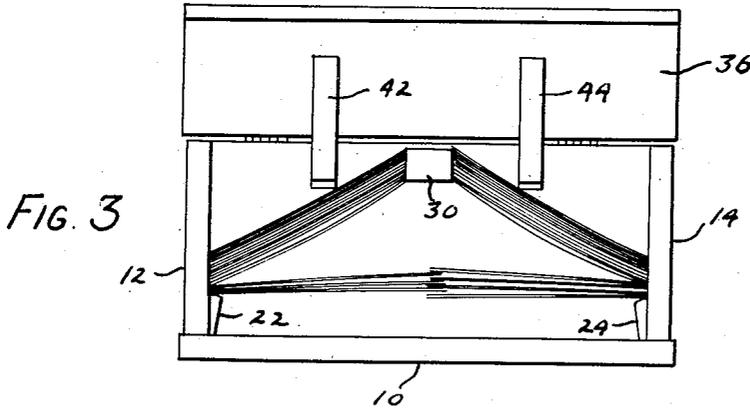


FIG. 3

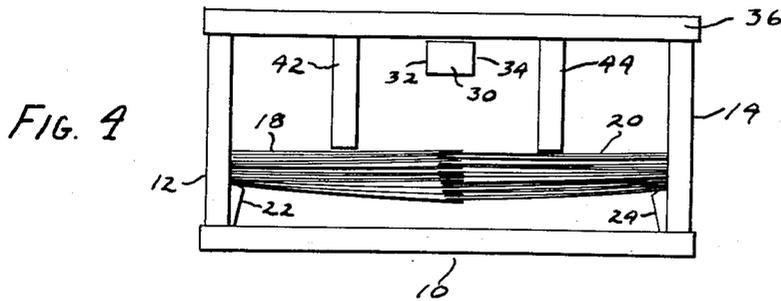


FIG. 4

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CARD SHUFFLING DEVICE

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1 Claim. (Cl. 273—149)

This invention relates to mechanical card shuffling devices.

One of the principal objects of my invention is to provide a card shuffling device of extremely simple construction that will shuffle ordinary playing cards in an efficient and effective manner.

Another object is to provide a device of the foregoing character that can be manufactured from inexpensive and light-weight materials, such as plastic or wood.

Still another feature of the invention resides in the provision of a card shuffler that will shuffle almost any number of cards, limited only by the inherent inability of extremely thick decks to properly flex. In this connection, it is to be expressly understood that my device will readily accommodate double decks, such as are commonly used in the playing of Canasta and the like. Actually, I have employed my device in the shuffling of four conventional decks of fifty-two cards per deck, this being possible when the cards are of fairly high quality and therefore relatively flexible.

A still further object is to provide a card shuffler that will not subject the cards to more than the ordinary amount of wear experienced in manual shuffling.

Other advantages of this invention will be apparent from the following detailed description when read in conjunction with the accompanying drawing, wherein:

Figure 1 is an end view of my device with its lid shown in raised position;

Figure 2 is a front elevation corresponding to Figure 1, and depicting a divided deck of cards ready for shuffling.

Figure 3 is an elevational view showing the cards in the process of being shuffled, and

Figure 4 is a similar view but showing the cards in a fully shuffled condition.

Referring now to the drawings, my card shuffling device includes an open front box comprised of a bottom wall panel 10, a pair of spaced end wall panels 12 and 14, and a rear wall panel 16. These panels may be molded in one piece, or may constitute a plurality of pieces held together by screws or an adhesive.

To form a ledge upon which the bottom edges of a split deck of cards constituting the two stacks 18 and 20 may rest, I situate a pair of block elements 22 and 24 adjacent the juncture of each end wall 12 and 14 with the bottom wall 10. The blocks 22 and 24 are preferably as long as the cards are wide, and are provided with a horizontal section 26 and a sloping section 28. In this way the ends of the lowermost cards may rest on the surface 26, yet when large decks are shuffled the sloping surface 28 will permit the lowermost cards to assume a downwardly inclined position after their upper edges have been permitted to fall, as will presently become more apparent.

In order to releasably support the upper ends of the stacks 18 and 20, I employ a block element 30 that preferably has a rectangular cross-section to thereby present two flat parallel surfaces 32 and 34. The block 30 projects from the inner surface of the rear wall 16 adjacent the wall's upper edge, and it will be observed that the shortest distance between the surfaces 32 and 34 to the

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surface 26 on both of the lower blocks 22 and 24 is slightly less than the length of playing card. It has been determined that if the block 30 is approximately three-fourths of an inch wide and at such an elevation with respect to the blocks 22 and 24 to support the stacks 18 and 20 at a forty-five degree angle, then the cards will be shuffled with about a one-quarter inch interleavement of their margins. It will of course be understood that the foregoing dimensions are only suggestive, being applicable for the standard three and one-half inch deck of cards.

A lid 36 is pivotally attached to the rear wall 16 by means of a pair of hinges 38 and 40. On the underneath side of the lid 36 are suitably affixed or molded a pair of spaced cams 42 and 44. These blocks or cams 42 and 44 are designed to abut the uppermost card of each stack 18 and 20 in a manner to flex each stack when a downward force is applied to the lid 36. To prevent damage to the cards the cams 42 and 44 may be rounded at 46, the portion which first engages the cards. From Figure 1 it will be noted that each cam 42 and 44 is inclined downwardly when the lid is vertical. By virtue of such an inclination the flat bottom 48 of each cam will literally be rolled into contact with the cards as the lid is pivoted into the closed position illustrated in Figure 4.

It is thought that the operation of my card shuffling device is obvious from the foregoing description. The pack of cards to be shuffled is first split into the two stacks 18 and 20, which stacks should each contain roughly the same number of cards. The two stacks 18 and 20 are then placed in the position shown in Figure 2, and the lid 36 is pivoted into the closed position illustrated in Figure 4, Figure 3 depicting the lid in an intermediate position, which position discloses some of the cards still unshuffled. As the lid 36 is closed the pressure action of the cams 42 and 44 will slightly flex the stacks 18 and 20 so that the upper ends of the cards will successively become disengaged from the block 30. No damage to the cards results during this procedure and after the cards have been urged into the interleaved position shown in Figure 4, they are removed from the device and simply pushed together to form once again the single pack which may then be dealt to the various players.

In accordance with the patent statutes, I have described the principles of construction and operation of my card shuffling apparatus, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claim without departing from the spirit of my invention.

I claim:

A card shuffler comprising connected bottom, rear and end walls, a pair of spaced fixed block members having sloping top surfaces disposed adjacent the respective junctures of said end walls and said bottom wall, a centrally disposed non-resilient block member having flat parallel surfaces projecting from the inner surface of said rear wall adjacent its upper edge, a lid hinged to the upper edge of said rear wall and extending between and overlapping said end walls, and a pair of spaced block members depending from the underneath side of said lid.

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