Jan. 22, 1935. F. P. ELLSWORTH 1,988,587

CARD GAME SIMULATOR AND INSTRUCTING DEVICE

Filed Nov. 19, 1931 2 Sheets-Sheet 1

Fig. 1.

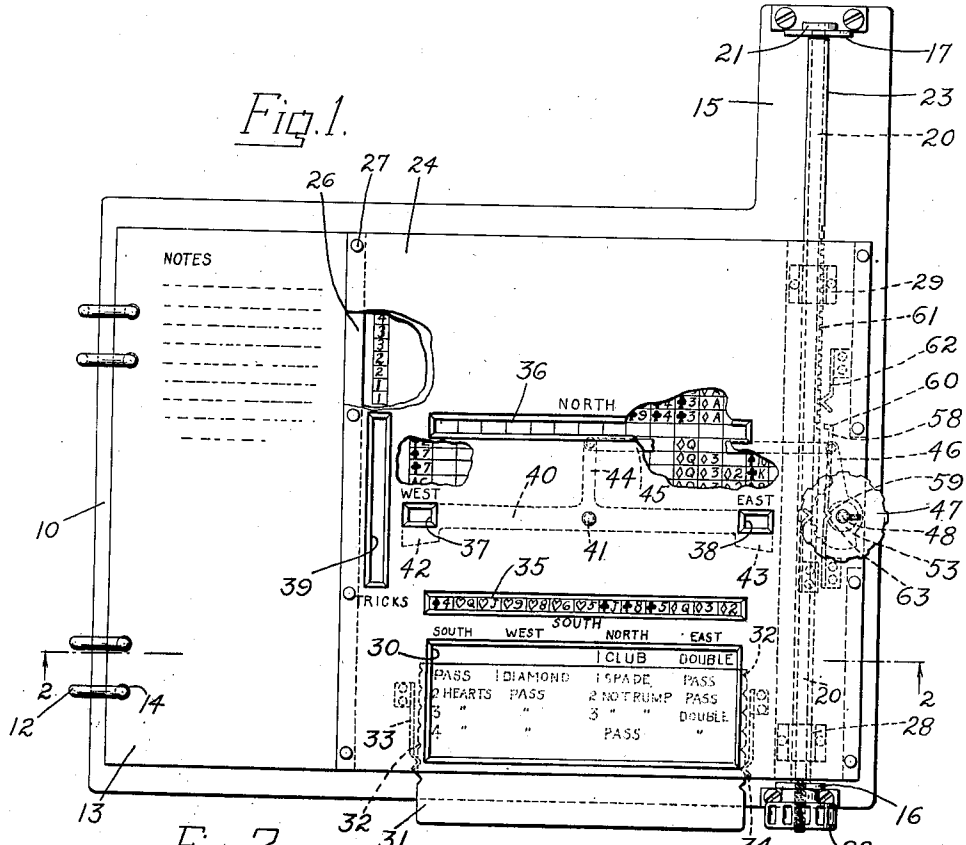


Fig. 2

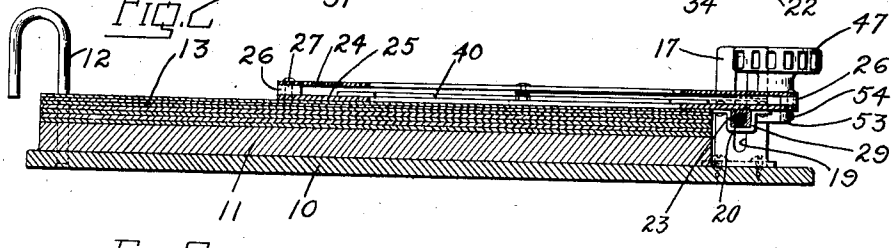
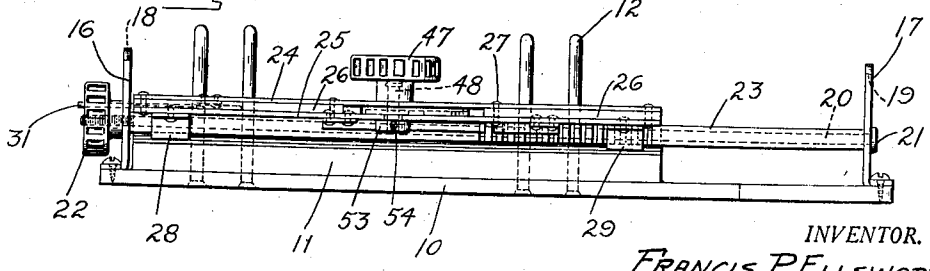


Fig. 3



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CARD GAME SIMULATOR AND INSTRUCTING DEVICE

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Fig. 4.

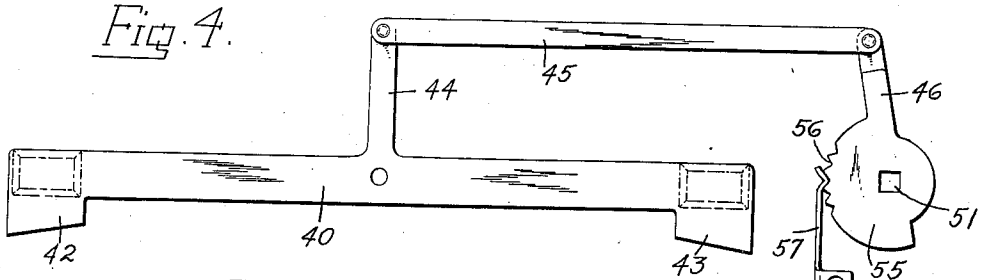


Fig. 5.

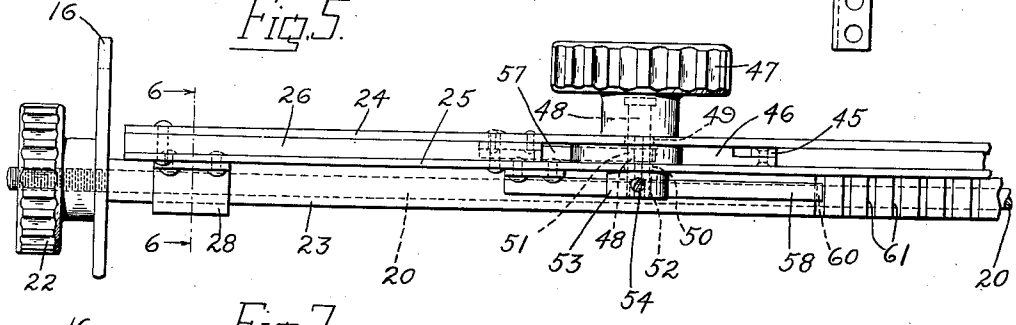


Fig. 7.

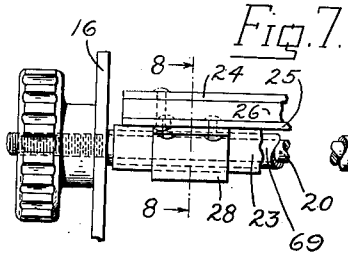


Fig. 8.

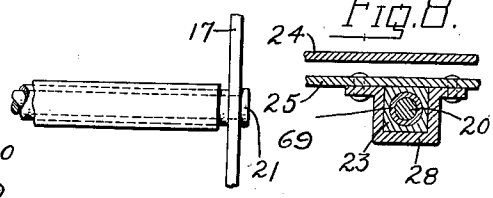


Fig. 6.

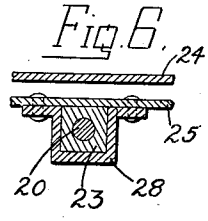
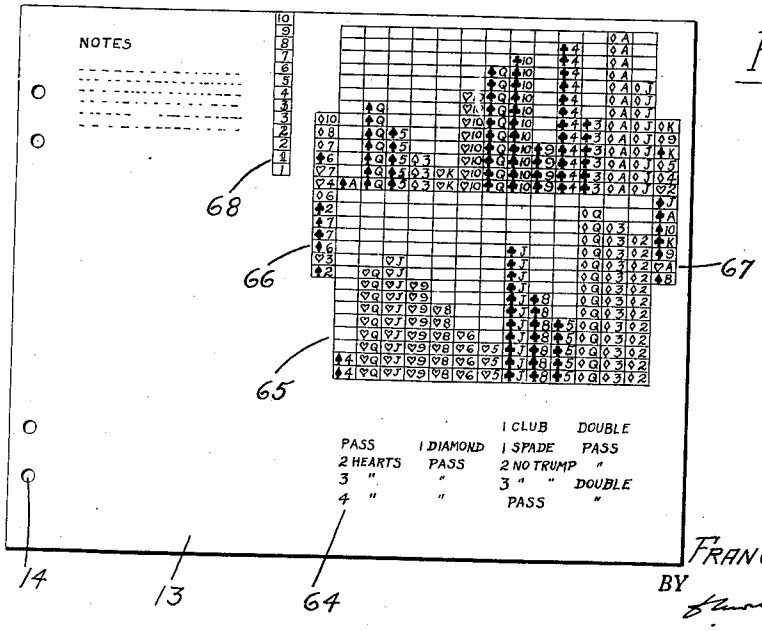


Fig. 9.



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UNITED STATES PATENT OFFICE

1,988,587

CARD GAME SIMULATOR AND INSTRUCTING DEVICE

Francis P. Ellsworth, New York, N. Y.

Application November 19, 1931, Serial No. 575,981

4 Claims. (Cl. 35—12)

The present invention relates to a card game simulator and instructing device, and has for an object to provide a device by means of which a person may play prepared hands of a card game normally played by several people, as for instance the game of bridge, in such a manner as to simulate the actual bidding and playing of such hands, thereby obtaining experience and instruction in the art of playing. A further object is to provide such a device, which will permit the exercise of a player's judgment in the same manner as in an actual game, and will confirm or correct the player's choice of cards, thereby instructing him in the proper method of playing the hand. Other objects are to provide a device of this character of simple and inexpensive construction, and which will be convenient and reliable in operation.

With the above and other objects in view an embodiment of the invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

In the drawings:

Fig. 1 is a plan view, with parts broken away showing the device at the beginning of the bidding of a hand.

Fig. 2 is a sectional view, taken along the line 2—2 of Fig. 1.

Fig. 3 is a side elevation.

Fig. 4 is a detail plan view, enlarged, of the shutter mechanism employed.

Fig. 5 is an enlarged detail side elevation, partly broken away, showing the mounting of the mask and the shutter operating mechanism.

Fig. 6 is a sectional view, taken along the line 6—6 of Fig. 5.

Fig. 7 is an enlarged detail side elevation, partly broken away, showing a modified arrangement for mounting the mask.

Fig. 8 is a sectional view taken along the line 8—8 of Fig. 7.

Fig. 9 is a plan view of one of the charts or playing sheets employed.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, the device, according to the illustrated embodiment of the invention, comprises a base 10, upon which is mounted a spacing block 11 provided at one end with inverted U-shaped post members 12 upon which the charts or playing sheets 13 are stacked, the latter being perforated for this purpose, as at 14, in the manner of the sheets of a loose-leaf book. The base 10 is extended at one end beyond the block 11 and is also extended upwardly at its upper edge as at 15 to provide a support for the mask mounting and operating mechanism.

Brackets 16 and 17 are secured to the base 10 upon the extended portions thereof adjacent the front and rear edges and are respectively provided with vertical slots 18 and 19 in which the ends of a rod 20 are mounted for vertical adjustment, the rearward end of this rod having a head 21, while the forward end is threaded and engaged by a thumb nut 22. A sleeve 23 of rectangular cross section is rotatably engaged upon the rod 20, and its ends abut the brackets 16 and 17, so that by tightening the nut 22 the rod and sleeve may be fixed in the proper position of vertical adjustment and the sleeve held against rotation on the rod.

The mask combines upper and lower plates 24 and 25 having spacing strips 26 at their end edges and secured together by rivets 27 engaged through the plates and said strips. Upon the under side of the mask there are secured a pair of rectangular straps 28 and 29 slidably engaged upon the rectangular sleeve 23. This arrangement allows the mask to be slid longitudinally of the sleeve 23 over the chart or playing sheet, and also permits the mask to be swung clear of the chart upon loosening the thumb nut 22, the sleeve 23 rotating about the rod 20.

The mask is provided at its forward portion with a bid exposing opening 30 provided along its upper edge with the designations "South", "West", "North" and "East". This opening is normally closed by a slide 31, provided at its end edges with a series of notches 32 adapted to be engaged by spring detent members 33 and 34 secured between the plates 24 and 25, and which yieldably retain the slide in its several positions. The lower end of the slide projects beyond the mask, so that it may be grasped and successively drawn outwardly to indicate the bidding, each movement of the slide exposing a round of bidding indicated on the chart.

An elongated slot 35 for exposing the player's hand is provided in spaced relation above the bidding opening 30, and has the designation "South" adjacent it, and in spaced relation above this there is provided an elongated slot 36 for exposing the "Dummy" hand and having the designation "North" adjacent it.

At each end and intermediate the slots 35 and 36 there are provided openings 37 and 38, adapted to expose a single played card indicated upon the chart, and having the designation "West" and "East" respectively. Along one side and at right angles to the slots 35 and 36 there is provided an elongated slot 39 for exposing the tricks taken, and having the designation "Tricks" adjacent it.

The openings 37 and 38 which designate the plays from the hands of "West" and "East", which hands are normally concealed from the player, are controlled by a shutter mechanism so that they are only exposed in the proper

order of the play of "West" and "East". The shutter mechanism comprises a shutter bar 40 pivotally mounted at 41 between the plates 24 and 25 and provided at its ends with downwardly extended shutter portions 42 and 43, so arranged that two successive movements of the bar in counter clockwise direction will first expose the "West" opening 37 while concealing the "East" opening 38, and will then expose both openings, this being the operation when the play of "West" precedes that of "East". When the play of "East" is first the shutter is given two successive movements in clockwise direction, first exposing the "East" opening 38 and then exposing the "West" opening 37.

The shutter bar 40 is provided centrally with an upwardly extended arm 44 connected by a link bar 45 to an operating lever 46 rotatably mounted between the plates 24 and 25. An operating knob 47 has its square shank 48 journaled in circular openings 49 and 50 in the plates 24 and 25 and engaged in the square opening 51 of the lever 46. The shank 48 is also engaged with square opening 52 of a cam member 53 provided beneath the plate 25 and secured to the shank by a set screw 54.

The lever 46 is provided with an arcuate hub portion 56 having a series of five notches 46 adapted to be engaged by a spring detent 57 secured between the plates 24 and 25, and which yieldably retains the lever in its several moved positions, the intermediate notch being engaged in the neutral position when both the "West" and "East" openings 37 and 38 are closed.

The play of "South" and "North" is indicated by moving the mask upwardly upon the chart, and in order to prevent such movement during the play of "West" and "East" a locking mechanism is provided consisting of a spring arm 58 secured to the under side of the plate 25 having a projection 59 engaging the periphery of the cam member 53 and having a finger 60 at its end adapted in the locked position to engage one of a series of notches 61 provided in the sleeve 23. A spring detent 62 secured to the plate 25 also engages these notches to yieldably retain the mask in its moved positions. The cam member 53 is provided with a recess 63 in which the projection 59 drops in the neutral position indicated in Fig. 1 releasing the finger 60 from the notches 61 and permitting movement of the mask. Upon movement of the knob 47 to operate the shutter bar 40 the cam member 53 is rotated to bring the projection 59 out of the recess 63 and upon its periphery moving the finger into locking relation with the notches 61 and preventing movement of the mask until again released by movement of the shutter to its neutral position.

The chart or playing sheet is provided with designations 64 indicating the bidding, these designations being so arranged that the successive rounds of bidding will be successively exposed as the slide 31 is drawn outwardly step by step.

A block 65, for indicating the cards in the player's hand and in the dummy hand, and the play of these cards, is provided with thirteen up and down divisions and twenty-eight cross-wise divisions, the fifteenth division being blank. During the bidding the player's hand, as shown in the first cross-wise division, is exposed through the slot 35 and the blank fifteenth division is exposed through the dummy hand slot 36. At the completion of the bidding the mask is moved up one space exposing the player's hand, as shown in the second division, through the slot 35, and exposing the dummy hand, shown in the sixteenth division, through the dummy hand slot 36. At this point the first card of the hands of "West" and "East", and which are shown in spaces 66 and 67 arranged in an up and down direction at each side of the block 64, are brought into register with the "West" and "East" openings 37 and 38, these cards being the two and eight of spades in the chart illustrated.

It will be understood that either "South" or "North" may be the declarer, "South" doing the playing in either case. This enables "South" to obtain experience in assisting his partner's bid.

At the start of the play "West" leads, so that the operating knob 47 is turned one notch in counter-clockwise direction, causing the shutter bar 40 to swing and expose the two of spades through the opening 37 as the card led by West. The player next selects a card from the dummy hand and then turns the knob 47 another notch operating the shutter to expose the eight of spades as the card played by "East". He thereupon selects a card from his own or the "South" hand. During this play the mask is locked against movement through the engagement of the locking finger 60 with one of the notches 61 of the sleeve 23, the cam 53 being turned by the knob 47 to bring the recess 63 out of engagement with the projection 59 of the arm 58. By turning the knob 47 into the neutral position to cause the shutter to close the "West" and "East" openings 37 and 38 the finger 60 is released and the mask may be moved. The mask is next moved another space bringing the third division into view through "South" or the player's slot 35 and the seventeenth division into view through the "North" or dummy slot 36. At the same time the first division of the space 68, indicating tricks taken, is brought into view through the "Trick" slot 39. The tricks taken by each side are indicated distinctively, as by printing the tricks of "North" and "South" in black, and the tricks of "East" and "West" in red, these latter being shown in the illustrated chart by double lines. The device will now indicate by the absence of the cards from the hands exposed through the slots 35 and 36 that the cards that should correctly have been played from the dummy hand and the player's hand are the ace of spades and the four of spades, the indication in the trick opening showing that one trick has been taken by "North" and "South".

The next lead is from the dummy hand, so that the player now selects the card to be played from dummy and then turns the operating knob 47 one notch in clockwise direction to expose the card played by "East" through the opening 38, the ace of hearts in this instance. He next selects a card from the "South" or player's hand and thereupon turns the knob another notch to expose the card played by "West" through the opening 37, the three of hearts. Upon moving the knob to neutral position and shifting the mask another space it is seen that the correct lead from dummy should have been the king of hearts and the correct card played from the player's hand the five of hearts, the trick indication in the slot 39 showing that this trick was taken by "East" and "West". The play is thus continued throughout the whole play of the hand, the cards shown as falling on the last trick being the ace, king, queen and ten of diamonds. In this illustration "North" and "South" have been successful in making the bid of four hearts

doubled, only three tricks having been taken by "East" and "West".

In Figs. 7 and 8 I have illustrated a modification in which a cylindrical sleeve 69 is provided on the rod 20 and about which the sleeve 23 which is shorter than the sleeve 69 is free to rotate at all times, the vertical adjustment of the rod 20 being fixed through abutment of the ends of the sleeve 20 with the brackets 16 and 17 upon tightening of the thumb nut 22.

I have illustrated and described a preferred and satisfactory embodiment of the invention, but it will be obvious that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a single player game apparatus, for simulating a plural player card game, a base, a chart detachably disposed on said base and having a plurality of prearranged card hand indications thereon, each hand indication representing cards of a single player, a mask overlying said chart, said chart and said mask being movable relatively to each other, said mask having sight means whereby a portion of said chart is visible through said mask and arranged in relation to said chart and whereby at least one of said hand indications is continuously exposed in any relative position of said chart and mask, shutter means carried by said mask arranged in relation to said chart and adapted to completely conceal certain of said hand indications and operable to expose only a single card indication of said certain hands of cards in any relative position of said chart and mask, and means actuated through the relative movement between said chart and mask effecting closing of said shutter means.

2. In combination, a chart having indicia thereon, a mask overlying said chart, said chart and mask being relatively movable in a plane parallel to the plane of the chart, said mask having sight openings therein, shutter means for completely concealing certain of the indicia and operable to expose other of the indicia in any relative position of said chart and mask, and means actuated by the relative movement between said chart and mask for effecting the closing of said shutter means.

3. In a single player game apparatus for simulating a four player card game, a base, a chart detachably disposed on said base and having four groups of card hand indications each representing a given plurality of cards in a single player's hand, two of said groups each having aligned card indication spaces for said given plurality of cards, said aligned spaces of the respective groups being arranged in spaced parallel lines terminating in inwardly spaced relation to the side edges of said chart, and the other two groups each having indicating spaces for individual card indications and being disposed in spaced parallel lines at right angles to the parallel lines of said first two groups and respectively arranged between the terminals of said first groups and the side edges of said chart, a mask overlying said chart, said chart and said mask being movable relatively to each other in a direction parallel to said side edges, said chart having sight openings for said respective groups, said sight openings for said first two groups being arranged in spaced and parallel relation and being co-extensive with all of the given plurality of card indication spaces to simultaneously expose all of them, and said sight openings for said other two groups being co-extensive with said individual card indication spaces of said groups to expose a single card indication, said last mentioned openings being outwardly offset toward the edges of said mask means with respect to the terminals of said first mentioned openings, portions of the mask between said terminals and the side edges of said mask constituting concealing means for said card indication spaces of said second two groups in line with said second mentioned sight openings and not in register therewith, said card indication spaces being successively brought into register with said sight openings through relative movement between said chart and said mask.

4. In a single player game apparatus for simulating a four player card game, a base, a chart detachably disposed on said base and having four groups of card hand indications each representing a given plurality of cards in a single player's hand, two of said groups each having aligned card indication spaces for said given plurality of cards, said aligned spaces of the respective groups being arranged in spaced parallel lines terminating in inwardly spaced relation to the side edges of said chart, and each of said groups having a plurality of successively arranged parallel lines of card indication spaces for said given plurality of cards, and the other two groups each having indicating spaces for individual card indications and being disposed in spaced parallel lines at right angles to the parallel lines of said first two groups and respectively arranged between the terminals of said first groups and the side edges of said chart, a mask overlying said chart, said chart and said mask being movable relatively to each other in a direction parallel to said side edges said chart having sight openings for said respective groups, said sight openings for said first two groups being arranged in spaced and parallel relation and being co-extensive with all of the aligned given plurality of card indicating spaces to simultaneously expose all of them, and said sight openings for said other two groups being co-extensive with said individual card indication spaces of said groups to expose a single card indication, said last mentioned openings being outwardly offset toward the edges of said mask means with respect to the terminals of said first mentioned openings, portions of the mask between said terminals and the side edges of said mask constituting concealing means for said card indication spaces in line with said second mentioned sight openings and not in register therewith, said card indication spaces being successively brought into register with said sight openings through relative movement between said chart and said mask, portions of the mask in line with said first mentioned sight openings constituting concealing means for the card indication spaces in line and not in register therewith, said card indication spaces being successively brought into register with said sight openings through relative movement between said chart and said mask.

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