H. G. TIFFANY.

SELECTING MACHINE FOR CARDS AND OTHER OBJECTS.

APPLICATION FILED NOV. 6, 1920.

1,405,076. Patented Jan. 31, 1922.

2 SHEETS—SHEET 1.

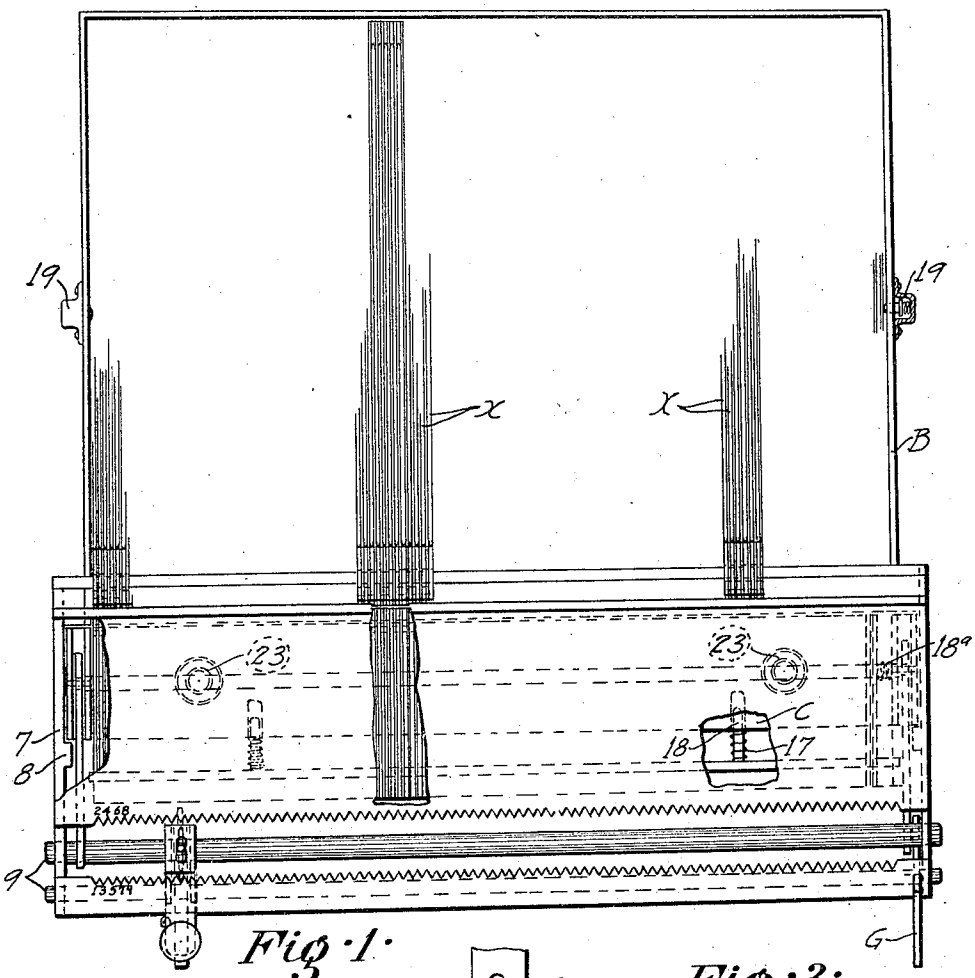


Fig. 1.

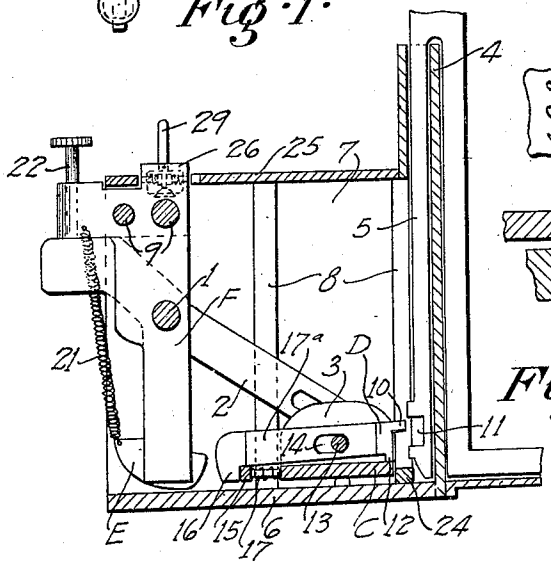


Fig. 2.

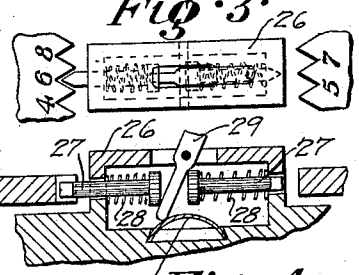


Fig. 3.

Fig. 4.

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2 SHEETS—SHEET 2.

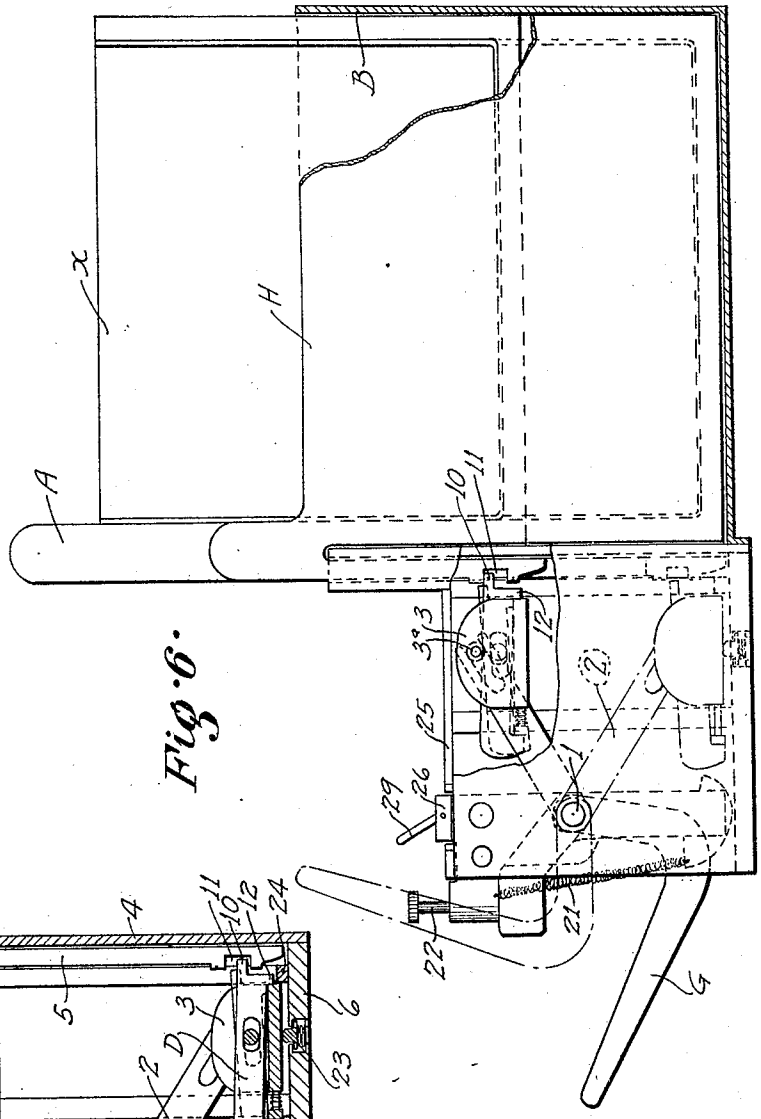


Fig. 6.

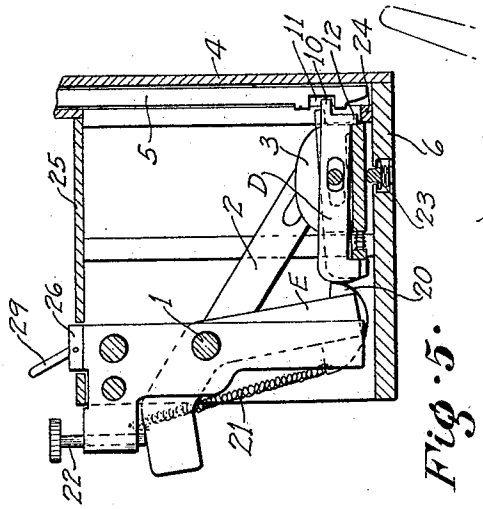


Fig. 5.

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SELECTING MACHINE FOR CARDS AND OTHER OBJECTS.

1,405,076. Specification of Letters Patent. Patented Jan. 31, 1922.

Application filed November 6, 1920. Serial No. 422,348.

To all whom it may concern:

Be it known that I, HIERO GILLAS TIFFANY, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Selecting Machines for Cards and other Objects, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines of the kind that are used for selecting a card or other object from a pack or group of objects and withdrawing, or partially withdrawing, the selected card from the pack.

The main object of my invention is to provide a machine of the character referred to that is of simple construction, inexpensive to manufacture and of such design that it is not liable to get out of order.

Another object is to provide a machine that will select one of a group of cards or other objects of somewhat similar form and move the selected object into such a position that practically the entire surface of same will be exposed to view. Other objects and desirable features of my invention will be hereinafter pointed out.

The machine shown herein is designed for use with cards such as are used in card index systems and preferably comprises a group of card holders arranged in parallel relation and in a vertical position, and mechanism for selecting any card holder in the group and moving the selected card holder into such a position that the card therein can be easily removed from the pack. I wish it to be understood, however, that my machine is not limited to use with cards, for it is capable of use with various other objects. For example, it can be used for selecting an envelope from a pack and withdrawing, or partially withdrawing, the selected envelope.

Figure 1 of the drawings is a top plan view of a machine constructed in accordance with my invention.

Figure 2 is a transverse sectional view of a portion of said machine.

Figure 3 is a detail top plan view illustrating the construction of the means that is used for holding the transversely-movable carriage in adjusted position.

Figure 4 is a sectional view of said means.

Figure 5 is a view similar to Figure 2, but with the parts in a different position; and

Figure 6 is an end view of the machine, partly broken away so as to more clearly illustrate the construction and operation of the machine.

Referring to the drawings which illustrate the preferred form of my invention, x designates a plurality of cards arranged edgewise and in parallel relation so as to form a pack of cards, each of the cards being provided with a different number, symbol or character so as to distinguish it from the other cards of the pack. Each of the cards x is positioned in a card holder A and said card holders are arranged edgewise and in parallel relation in a tray or receptacle B which may be of any preferred construction or design. Means is provided for selecting any particular card holder of the group, and thereafter moving said selected card holder upwardly into the position shown in Figure 6 so that the card therein can be easily removed from the pack, and while said means can be constructed in various ways without departing from the spirit of my invention, I prefer to provide the machine with a card holder raising mechanism composed of a vertically-movable member C arranged in front of the card tray B and equipped with a plurality of card holder selecting devices D corresponding in number to the card holders A. The selecting devices D are rendered inoperative or moved into engagement with their co-operating card holders by means of an actuating device E mounted on a carriage F arranged in such a manner that it can be moved transversely of the machine so as to bring the actuating device F into registration or alignment with the selecting device D of any particular card holder. After the carriage F has been positioned and the device E thereon actuated to cause one of the selecting devices D to engage or co-operate with the holder of the card which it is desired to withdraw or partially withdraw from the pack, the member C is moved upwardly from the position shown in Figure 5 into the position shown in full lines in Figure 6 by depressing a lever or handle G secured to a rock shaft 1 that is provided with arms 2 whose rear ends are connected

to upwardly-projecting bifurcated brackets 3 on the member C which carries the card holder selecting devices D. While I have herein illustrated my invention embodied in a machine in which each card holder has associated therewith a selecting device that is rendered operative by an actuating device common to a plurality of selecting devices and mounted on a transversely-movable carriage, I wish it to be understood that my broad idea is not limited to the particular means herein illustrated for selecting the card holders and moving them into a position to expose or permit the withdrawal of the cards. Nor do I wish it to be understood that a machine operating on the principle of of the machine herein illustrated must be of the particular construction herein disclosed.

The card holders A can be formed conveniently from thin metal plates of approximately the thickness of the cards and provided with an opening or cut out portion of such shape that each holder will comprise two vertically-disposed, parallel portions arranged at the front and at the rear edge of the card and a horizontally-disposed portion that ties said vertical portions together and also acts as a support for the lower edge of the card, thus forming a holder that resembles a rectangularly shaped frame whose upper side is open, as shown in Figure 6. The card holders A are arranged edgewise and in parallel relation in the tray or receptacle B and are held spaced apart by spacers H preferably formed from thin metal plates of substantially rectangular shape in outline, as shown in Figure 6, said spacers H being mounted in the card tray B in such a manner that they form vertically-disposed pockets or guideways in which the card holders A can slide vertically. These spacers prevent the card holders from sticking together, thus insuring a selected card holder moving independently of the two holders between which it is arranged. Each of the card holders A is provided at its front end with a bifurcated portion that straddles a vertically-disposed plate 4 that extends transversely of the machine and which preferably forms the front wall of the tray or receptacle B in which the card holders A are arranged, thus providing legs or parts 5 at the front ends of the card holders which are located outside of the card tray B, as shown clearly in Figure 2. If desired, the front end portions of the spacers H can also be bifurcated so as to straddle the transversely-disposed guide plate 4, and thus prevent the parts 5 of the card holders from bearing upon each other.

The part of the machine that is arranged in front of the card tray B comprises a horizontally-disposed base plate 6 provided at its ends with vertically-disposed walls 7 that support the horizontal rock shaft 1 previously referred to which forms part of the mechanism for raising and lowering the member C which carries the card holder selecting devices D. The member C consists of a horizontally-disposed plate arranged parallel to the base plate 6 and provided at its ends with upwardly-projecting bifurcated brackets 3 previously referred to, whose outer end portions slide vertically between guides 8 on the vertical walls 7 at the ends of the base plate, as shown in Figure 1. The arms 2 on the rock shaft 1 are bifurcated at their rear ends, as shown in broken lines in Figure 6, so as to receive rollers 3^a carried by the brackets 3 on the member C. The transversely-movable carriage F is slidingly mounted on a pair of horizontally-disposed guide rods 9 carried by the walls 7 at the ends of the base plate 6 and the rock shaft 1 is also used as a guide for said carriage, said carriage being provided with a hole through which the rock shaft 1 passes.

The card holder selecting devices D consist of thin metal members of the same or slightly less thickness than the card holders A, and they are mounted on the member C in such a manner that they can move towards and away from the card holders A. As previously stated, a selecting device D is provided for each of the card holders A, and each of said selecting devices is provided at its rear end with a tooth or lug 10 that enters a notch 11 in the front end portion 5 of the card holder with which it co-operates when said selecting device is moved rearwardly from the position shown in Figure 2 into the position shown in Figure 5. After a selecting device D has been moved rearwardly into engagement with its co-operating card holder said selecting device becomes locked automatically by a depending lug 12 on the extreme rear end thereof that snaps downwardly over the rear edge of the member C. The selecting devices D are arranged transversely of the member C in parallel relation with each other and are rockably mounted on a transversely-disposed, horizontal rod 13 carried by the brackets 3 on the member C, each of said selecting devices being provided with an elongated slot 14 so as to provide for the movement of said selecting device towards and away from its co-operating card holder. The selecting devices D are normally held in their retracted position shown in Figure 2 by a spring-pressed bar 15 that bears against depending lugs 16 located at the extreme front ends of the selecting devices D, said bar 15 being arranged in front of the member C in parallel relation to same and being acted upon by expansion springs 17 (see Figure 1) that surround guide pins

18 on the bar 15 which projects rearwardly into holes in the member C. Short spacers 17^a of the same thickness as the spacers H between the card holders are arranged between the selecting devices D so as to insure said selecting devices moving independently of each other, and means is provided for pressing the spacers 17^a and the selecting devices D closely together, which means may consist of a coiled expansion spring 18^a on the rod 13, as shown in broken lines in Figure 1. It is also preferable to use a similar spring or spring-pressed plunger 19, as shown in Figure 1, so as to press the card holders A and their co-operative spacers close together.

The actuating device E on the transversely-movable carriage F consists of a substantially bell-crank-shaped lever pivotally mounted on the carriage F and provided at its lower end with a cam-shaped portion 20 of such shape that when it engages the front end of one of the selecting devices D it will tilt the rear end of said selecting device downwardly slightly during the rearward movement of said selecting device, thus causing the depending locking lug 12 at the rear end of the selecting device to snap downwardly into engagement with the rear edge of the member C when said selecting device reaches its rearward position. This is clearly illustrated in Figure 5 of the drawings, wherein one of the selecting devices is shown locked in its rearward position. The actuating device E is normally held in an inoperative position or spaced slightly away from the selecting devices by a means which may consist of a coiled tension spring 21 connected at its upper end to the carriage F and at its lower end to a portion of the depending leg of the device E which carries the cam 20. Said device E is rocked or moved into engagement with one of the selecting devices by depressing the front end of the horizontal arm of said device, the machine herein illustrated being provided with a plunger 22 that is reciprocatingly mounted in the carriage F at a point in alignment with the horizontal leg of the actuating device E.

The member C which carries the selecting devices D is normally held spaced slightly above the base plate 6 by a plurality of spring-pressed plungers 23 that are mounted in said base plate, as shown in Figures 1 and 5. The purpose of supporting the member C in this manner is to permit said member C to move downwardly slightly with relation to a tripping element 24 arranged parallel to the rear edge of same, so as to automatically trip or release the operative selecting devices when the member C is moved downwardly during the operation of restoring a card holder to its normal position. As shown in Figure 2, the tripping element 24 consists of a transversely-disposed bar or shoulder on the base plate 6 arranged at the rear edge of the member C, the top face of said bar 24 lying in a lower horizontal plane than the top face of the member C. When one of the selecting devices D is moved rearwardly and locked by the engagement of the depending lug 12 thereon with the rear edge of the member C, the tripping element 24 then becomes positioned underneath said lug 12. When the operating handle or lever G is thereafter swung upwardly to restore the member C to its normal position, said member C will move downwardly with sufficient force to depress the spring-pressed plungers 23 arranged underneath said member C, and the tripping element 24 will then strike against the locking lug 12 on the operative selecting device and move the rear end of said selecting device upwardly sufficiently to release it from engagement with said member C. As soon as said selecting device is released it will move forwardly under the influence of the spring-pressed bar 15.

The position of the carriage F with relation to the selecting devices D is governed by numbers, characters or symbols arranged on a stationary part of the machine adjacent the path of travel of said carriage. If the cards x are distinguished from each other by numbers on said cards a set of corresponding numbers will be arranged adjacent the path of travel of the carriage F so as to enable the operator to quickly set said carriage in such a position that the actuating device E thereon will register with the selecting device D that co-operates with the holder A which contains the card that it is desired to inspect or withdraw from the machine. In the machine herein shown two sets or groups of notches are arranged transversely of the machine at opposite sides of a slot or opening in the top plate 25 through which the upper end portion 26 of the carriage F projects, the notches of the respective groups or sets being arranged in staggered relation to each other and those on one side of the slot being provided with odd numbers, for example, the numbers 1, 3, 5, 7, 9, etc., and those on the other side of the slot being provided with even numbers, for example, the numbers 2, 4, 6, 8, etc.

Various means can be used for locking the carriage F in adjusted position, the means herein shown for this purpose consisting of two oppositely-disposed plungers 27 reciprocatingly mounted in the top portion 26 of the carriage F, springs 28 combined with said plungers for normally holding them in a retracted position, and a lever or other manually-operable device 29 pivotally mounted on the carriage F and arranged so that when it is moved in one direction one of said plungers will be moved

into engagement with one of its co-operating notches, and when said lever 29 is moved in the opposite direction the other plunger 27 will be moved into engagement with one of its co-operating notches. The lower end of the lever 29 bears upon an arch-shaped resilient element 30, as shown in Figure 4, that holds said lever in the position to which it has been moved, thus operating to lock the carriage F in adjusted position.

When it is desired to inspect or withdraw a particular card *x* from the pack in the card holder B, the operator moves the carriage F transversely of the machine until one of the plungers 27 on said carriage registers with the notch whose number corresponds to the number of the card which it is desired to inspect or remove from the machine. For example, if the card to be inspected or withdrawn from the machine is numbered 8, the operator shifts the carriage F laterally until one of the plungers 27 thereon registers with the notch marked with the numeral 8 and then locks said carriage in adjusted position by moving the lever 29 so as to force the plunger into engagement with the notch marked 8. When the carriage is in this position the actuating device E thereon is in alignment with the selecting device D which co-operates with the holder A containing card No. 8. The operator then depresses the finger plunger 22 so as to cause the actuating device E to set up or render operative the selecting device which co-operates with the card holder containing card No. 8, the rocking movement that is imparted to the device E causing the cam 20 thereon to shift the selecting device D rearwardly into engagement with the notch 11 in the front portion 5 of the card holder and said selecting device becoming automatically locked as soon as it reaches the end of its rearward stroke, as previously described. Thereafter, the operator depresses the operating handle G so as to raise the member C which carries the selecting devices D, the upward movement of said member C causing the card holder A which is in interlocking engagement with the operative selecting device D to move upwardly into the position shown in Figure 6. After said card holder has been moved into this position the card *x* thereon can be inspected without removing it from the holder, or the card can be lifted out of the holder and removed from the machine. Thereafter, when the operating handle is moved upwardly back to its former position, the arms 2 on the rock shaft 1 move the member C downwardly with sufficient force to cause the tripping element 24 to engage the locking lug 12 at the rear end of the operative selecting device D and trip or release said selecting device from engagement with the rear edge of the member C, thereby permitting said selecting device to move forwardly under the influence of the spring-pressed bar 15. After the carriage F has been released by manipulating the lever 29 which co-operates with the locking plunger 27, said carriage can be moved transversely of the machine so as to bring the actuating device E thereon into registration with the selecting device that co-operates with the holder which contains the next card which it is desired to inspect or remove from the machine. To restore a card which has been removed from the machine the same operations are repeated, namely, the carriage F is first moved into such a position that one of the locking plungers 27 thereon will register with the notch whose number corresponds with the number of the card which is to be replaced, the actuating device E on the carriage is then moved or operated so as to set up the selecting device that co-operates with the holder for that particular card and the operating handle G is thereafter depressed so as to elevate the empty card holder. After the card has been replaced in its holder the operating handle G is restored to its former position, which operation depresses the card holder and automatically releases the operative selecting device.

When the machine is designed for holding a large number of cards, for example, several thousand cards, I prefer to build it in units, each of which holds a certain number of cards, and provide a carriage and actuating device for each unit. This is of considerable advantage, in that it enables the owner of the machine to easily increase the capacity of the machine by adding additional units or sections from time to time. It will be obvious, however, that a single carriage provided with an actuating device could be used for setting up all of the selecting devices of the machine. A machine of the construction above described can be manufactured at a low cost, due to the fact that the parts of a similar character are duplicates of each other and can be formed by a simple stamping operation. And still another desirable feature of such a machine is that it is not liable to get out of order, due to its simple construction. The fact that the cards are raised a relatively great distance is also of considerable advantage, as it often permits the operator to inspect a card and obtain the desired information from same without bodily removing the card from the machine.

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

1. A machine for selecting cards and other objects, comprising a group of vertically-disposed holders arranged in parallel rela-

tion and each adapted to contain a card or object, a movable member extending transversely of said group at one end of same, and a manually-operated means capable of being moved lengthwise of said movable member for selecting any holder of the group and connecting it with said movable member so that when said member is actuated the selected holder will be moved relatively to the other holders of the group.

2. A machine for selecting cards and other objects, comprising a group of holders arranged in parallel relation and each adapted to contain an object of the kind which the machine is designed to handle, a group of selecting devices corresponding in number to said holders, a shiftable means capable of being moved into operative relationship with any one of said selecting devices for coupling up a particular selecting device with its co-operative holder, and means for moving the selected holder relatively to the other holders of the group so as to permit the object therein to be inspected or removed from the holder.

3. A machine for the purpose described, comprising means for holding a pack of cards or objects of somewhat similar form in parallel relation to each other, a selecting device for each card of the pack, a shiftable means capable of being moved into one of a number of different positions and then operated for setting up or rendering operative a particular selecting device of the group, and means for causing said selecting device to withdraw or partially withdraw from the pack the card with which said selecting device is associated.

4. A machine for selecting cards and other objects, comprising a group of holders arranged in parallel relation and each adapted to hold an object, a movable member that extends transversely across one end of said group of holders, devices on said member capable of being moved independently of each other for connecting said member with any holder of the group, and means for moving said member so as to shift the selected holder relatively to the other holders of the group.

5. A machine for selecting cards and other objects, comprising a group of holders arranged in parallel relation and each adapted to hold an object, a group of selecting devices, an actuating device adapted to be moved into operative relationship with any one of said selecting devices and thereafter operated so as to establish co-operative relationship between the selected selecting device and the holder with which said device co-operates, and means for imparting movement to the selecting device that has been set up or rendered operative so as to shift the selected holder relatively to the other holders of the group.

6. A machine for the purpose described, comprising means for holding a group of cards or other objects in a vertical position in parallel relation with each other, a group of selecting devices corresponding in number to the objects of said group, a shiftable means capable of being moved into one of a number of different positions and then operated so as to set up or render operative the selecting device that is associated with the object which it is desired to inspect or withdraw from the group, and means for bodily moving said operative selecting device so as to shift or change the position of the object with which said selecting device is associated.

7. A machine for selecting cards and other objects, comprising a group of holders arranged vertically and in parallel relation and each adapted to hold a card or other object, a movable member provided with a group of selecting devices corresponding in number to said holders, a carriage provided with an actuating device common to a plurality of selecting devices and adapted to be moved relatively to same so as to cause said actuating device to register with a particular selecting device, said actuating device being adapted to be moved so as to cause one of said selecting devices to engage its co-operating holder, and means for moving said movable member so as to shift or change the position of the holder which co-operates with the selecting device that has been set up or rendered operative.

8. A machine for the purpose described, comprising a group of holders arranged in a vertical position and in parallel relation and each adapted to hold a card or other object, a vertically-movable member arranged in proximity to said group of holders, a group of selecting devices on said vertically-movable member, a carriage arranged to move transversely of said group of selecting devices, an actuating device on said carriage, which, when operated, causes one of said selecting devices to engage its co-operating holder, and means for raising said vertically-movable member so as to cause the operative selecting device thereon to raise its co-operating holder.

9. A machine for the purpose described, comprising a group of holders arranged in parallel relation and adapted to hold cards or other objects which are distinguished from each other by numbers, characters or symbols, a selecting device associated with each of said holders and arranged at one end of same in longitudinal alignment with the holder, means for showing the relationship between said selecting devices and the objects in said holders, a shiftable means capable of being moved transversely of the group of holders for coupling any one of

said selecting devices with its co-operating holder, and means for bodily shifting said operative selecting device so as to shift or move the selected holder relatively to the other holders of the group.

10. A machine for the purpose described, comprising a group of vertically-disposed holders arranged in parallel relation and each adapted to hold a card or other object equipped with a number, character or symbol that distinguishes it from the objects in the other holders, a movable member equipped with a group of selecting devices corresponding in number to said holders, means for showing the relationship between each of said selecting devices and the object in the holder with which said selecting device co-operates, a device common to a plurality of said selecting devices that is adapted to be operated so as to couple up a particular selecting device with its co-operating holder, and means for actuating said movable member so as to effect a change in the position of the selected holder with relation to the other holders of the group.

11. A machine for the purpose described, comprising a group of holders arranged in a vertical position and in parallel relation to each other, each of said holders being adapted to contain a card or other object, a vertically-movable member arranged in one side of said group of holders and extending transversely of same, selecting devices on said movable member, a transversely-movable carriage provided with an actuating device that is adapted to be brought into registration with one of said selecting devices and thereafter moved so as to cause said selecting device to engage its co-operating holder, and means for raising said movable member so as to displace the selected holder.

12. A machine of the character described, comprising a group of elements, each of which is adapted to co-operate with one card or object of a pack of objects, a movable member arranged in proximity to said elements, selecting devices on said movable member corresponding in number to said elements, a notch in each of said elements for receiving its co-operating selecting device, means for moving a particular selecting device on said member with relation to the other selecting devices so as to establish co-operative relationship between same and its co-operating element, and means for moving said member, for the purpose described.

13. In a machine for selecting cards and other objects, a group of selecting devices corresponding in number to the total number of cards or objects which the machine is adapted to handle, a movable member that carries a plurality of said selecting devices, means for setting up or automatically locking any one of the selecting devices on said movable member, said member being adapted to be moved so as to shift or change the position of the object with which the operative selecting device co-operates, and means for automatically releasing the operative selecting device when said movable member is restored to its former position.

14. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, each of said holders being adapted to hold a card or other object, a vertically-movable member arranged transversely of said group of holders at one side of same, selecting devices on said member arranged in alignment with said holders, means for moving any selecting device of the group into engagement with its co-operating holder, means for automatically locking the selecting device that has been set up or rendered operative, means for raising and lowering said movable member for the purpose described, and means for automatically releasing the operative selecting device when said member is restored to its former position.

15. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, a vertically movable member arranged transversely of said holders in front of same, selecting devices on said member arranged in alignment with said holders, means for moving any one of said selecting devices rearwardly into engagement with its co-operating holder, means for raising said movable member so as to shift the holder that co-operates with the operative selecting device, and means for preventing said operative selecting device from being disengaged from its co-operating holder while said member is being raised.

16. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, a vertically-movable member arranged transversely in front of said holders, selecting devices on said movable member arranged in alignment with said holders, means that normally holds said selecting devices in an inoperative position with relation to said holders, and means under control of the operator of the machine for causing any one of said selecting devices to be moved into locking engagement with its co-operating holder, said member being adapted to be thereafter moved for the purpose described.

17. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, a vertically-movable member arranged transversely in front of said holders, shiftable selecting devices on said member arranged in alignment with said holders, a resilient means for normally holding said selecting devices inoperative with relation

to their co-operating holders, an actuating device that is adapted to be moved so as to shift one of said selecting devices rearwardly into engagement with its co-operating holder, and means for automatically locking said operative selecting device after it has engaged its co-operating holder.

18. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, a vertically movable member arranged transversely of said holders in front of same, means for raising and lowering said member, shiftable selecting devices on said member arranged in alignment with said holders, a transversely-movable carriage, and an actuating device on said carriage that is adapted to be operated so as to shift one of said selecting devices rearwardly into engagement with its co-operating holder.

19. A machine for the purpose described, comprising a group of holders arranged vertically and in parallel relation to each other, a vertically-movable member arranged transversely of said holders in front of same, means for raising and lowering said member, shiftable selecting devices on said member arranged in alignment with said holders, a transversely-movable carriage, an actuating device on said carriage that is adapted to be operated so as to shift one of said selecting devices rearwardly into engagement with its co-operating holder, means for automatically locking the operative selecting device while said member is being raised and lowered, and means for automatically releasing said operative selecting device when said member is restored to its normal position.

20. A machine for the purpose described, comprising a group of holders arranged in parallel relation to each other, spacers between said holders, a movable member, shiftable selecting devices on said movable member arranged in longitudinal alignment with said holders, a carriage arranged to travel lengthwise of said member and provided with an actuating device that is adapted to be operated so as to shift one of the selecting devices on said member into engagement with its co-operating holder, and means for bodily moving said member so as to cause the operative selecting device thereon to effect a change in the position of the holder with which said operative selecting device co-operates.

21. A machine for the purpose described, comprising a plurality of holders arranged vertically and in parallel relation to each other and each adapted to hold a card or other object, each of said holders being provided at one end with a bifurcated portion, a vertically-disposed plate straddled by the bifurcated portions of said holders, a vertically-movable member arranged transversely in front of said holders, selecting devices on said member corresponding in number to said holders, a rock shaft provided with means for raising and lowering said member when said shaft is actuated, a transversely-shiftable carriage, and an actuating device on said carriage that is adapted to be operated so as to move any one of said selecting devices into engagement with its co-operating holder.

22. A machine for the purpose described, comprising a plurality of holders arranged vertically and in parallel relation to each other and each adapted to hold a card or other object, each of said holders being provided at one end with a bifurcated portion, a vertically-disposed plate straddled by the bifurcated portions of said holders, a vertically-movable member arranged transversely in front of said holders, selecting devices on said member corresponding in number to said holders, a rock shaft provided with means for raising and lowering said member when said shaft is actuated, a transversely shiftable carriage, an actuating device on said carriage that is adapted to be operated so as to move any one of said selecting devices into engagement with its co-operating holder, and means arranged in proximity to the path of movement of said carriage for showing where the carriage is to be positioned to effect the operation of any particular holder.

23. In a machine for selecting cards and other objects, a movable member that is adapted to be operated so as to bodily shift a selected object relatively to the other objects of the group, a plurality of selecting devices arranged transversely of said member, a supporting means on said member on which said selecting devices are rockably mounted, an actuating device for shifting any one of said selecting devices relatively to the other selecting devices of the group and also tilting same, and lugs on said selecting devices that are adapted to co-operate with one edge of said member so as to lock the operative selecting device.

24. A machine for selecting cards and other objects, comprising a plurality of holders arranged in parallel relation to each other and each adapted to contain a card or similar object, a horizontally-disposed base plate arranged in front of said holders transversely of same, vertical end walls on said base plate, a vertically-movable member guided by said end walls, means for raising and lowering said member, selecting devices on said member arranged in alignment with said holders, a supporting means carried by said end walls, a laterally-movable carriage on said supporting means, and

an actuating means on said carriage that is adapted to be operated so as to establish co-operative relationship between any one of said selecting devices and its co-operating holder.

25. A machine for selecting cards and other objects, comprising a plurality of holders arranged in parallel relation to each other and each adapted to contain a card or similar object, a horizontally-disposed base plate arranged in front of said holders transversely of same, vertical end walls on said base plate, a vertically-movable member guided by said end walls, means for raising and lowering said member, selecting devices on said member arranged in alignment with said holders, a supporting means carried by said end walls, a laterally-movable carriage on said supporting means, an actuating means on said carriage that is adapted to be operated so as to establish co-operative relationship between any one of said selecting devices and its co-operating holder, means for automatically locking the selecting device that has been set up or rendered operative, and a tripping element on said base plate arranged in such a position that it will automatically release the operative selecting device when said vertically-movable member is restored to its normal position.

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