

May 16, 1944.

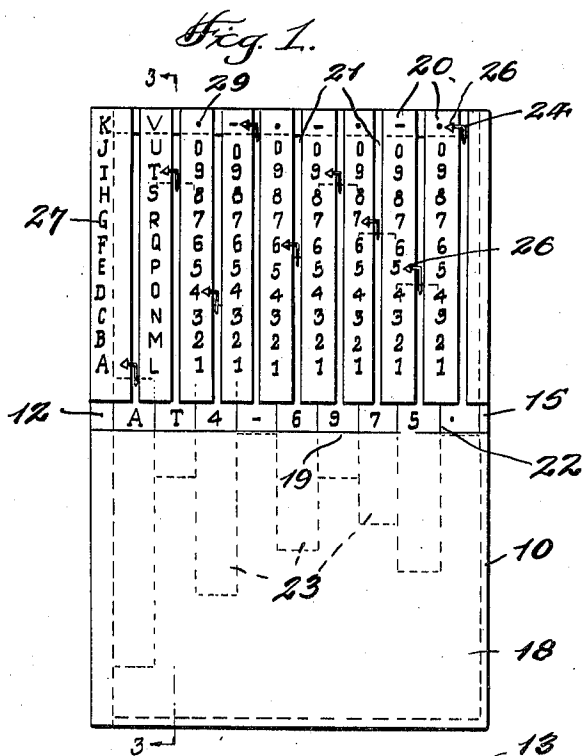
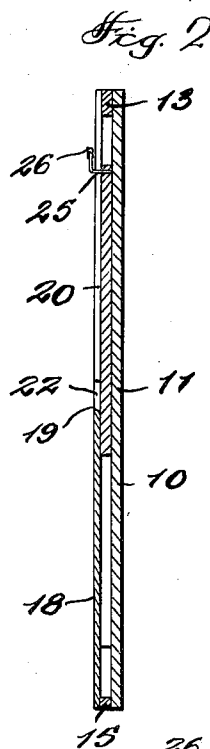
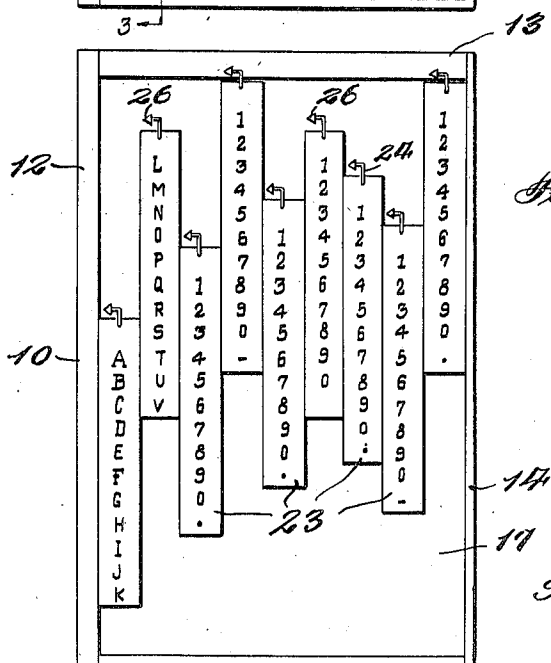
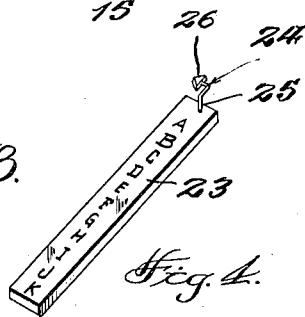
S. AXELROD

2,349,070

REGISTER DEVICE

Filed June 17, 1941

2 Sheets-Sheet 1



Inventor

Solomon Axelrod

34 Christian R. Nielsen

Attorney

May 16, 1944.

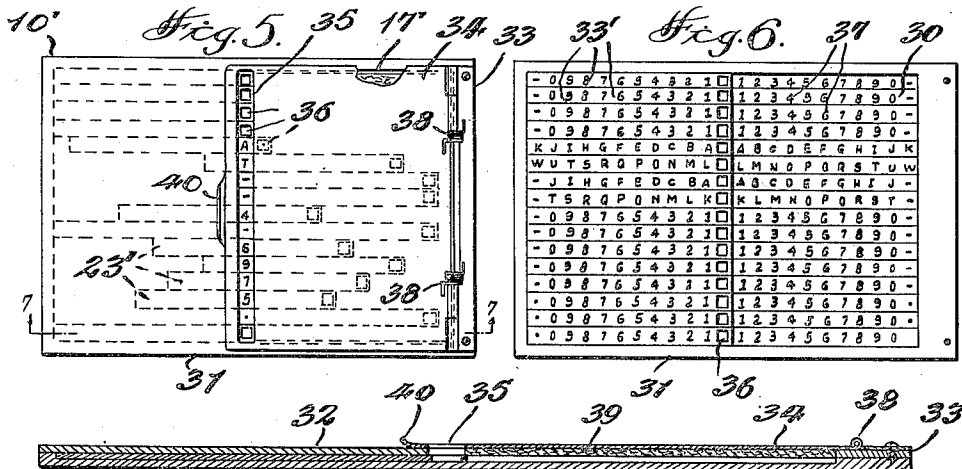
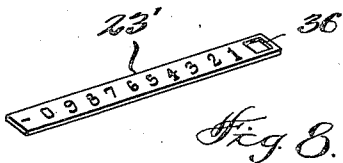
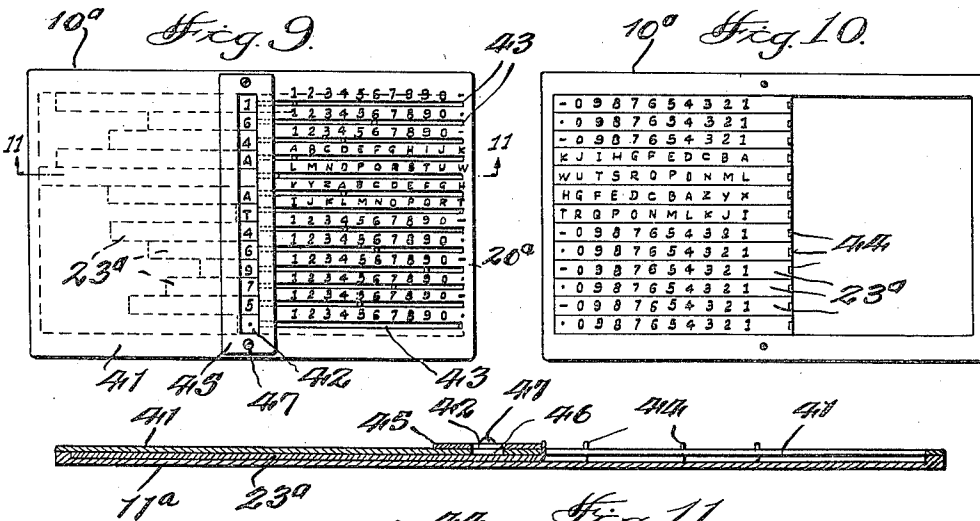
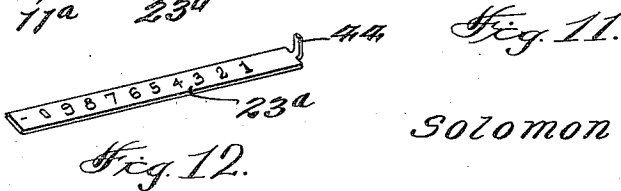
S. AXELROD

2,349,070

REGISTER DEVICE

Filed June 17, 1941

2 Sheets-Sheet 2



Inventor

Solomon Axelrod

By Christian R. Nielsen.
Attorney

UNITED STATES PATENT OFFICE

2,349,070

REGISTER DEVICE

Solomon Axelrod, Bronx, N. Y.

Application June 17, 1941, Serial No. 398,504

2 Claims. (Cl. 40—65)

The invention has for an object to provide a simple device for setting up quickly a memorandum of a number, such as a number of a telephone, or the number of an automobile, although the device may be adapted also to other uses, as will be readily understood from the following disclosure.

It is an important aim of the invention to enable the embodiment of the device in an extremely cheap construction, yet one which will be quite durable and efficient in use.

A further important aim is to present such an article which may be carried in the vest pocket, without liability of being damaged thereby. A further important aim is to present such an article which may be manipulated without requiring a mechanism to set the members or other data. A still further important aim is to present specific details of such an article enabling it to be produced from stock sheet paper boards or other cheap sheet material, and which will, nevertheless, present a good appearance and will present the desired memorandum in a good readable fashion.

A most important aim of the invention is to provide a novel means for enabling the movement of the elements of the device, and to retain these in such position with a minimum liability of disturbance thereafter.

Additional objects, advantages and features of invention reside in the construction, arrangement and combination of parts involved in the embodiment of the invention, and otherwise, as will be understood more clearly from the following description and accompanying drawings, wherein Figure 1 is a face view or plan view of an article embodying the invention.

Figure 2 is a longitudinal sectional view thereof, looking in the direction of the arrow, on the line 3—3 of Figure 1.

Figure 3 is a top view of the article with the top plate portion removed.

Figure 4 is a detail of one of the slides,

Figure 5 is a top view of a modification of the article,

Figure 6 is a similar view with the top pieces removed, constituting the cover plate of the casing portion.

Figure 7 is a longitudinal sectional view on the line 7—7 of Figure 5.

Figure 8 is a detail of one of the slides of the device in Figures 5 to 7.

Figure 9 is a top view of a still further modification.

Figure 10 is a similar view thereof, with the top plate element removed.

Figure 11 is a longitudinal sectional view on the line 11—11 of Figure 9.

Figure 12 is a detail of one of the slides of Figures 9 to 11.

There is illustrated in Figures 1 to 4, a memorandum device which consists of a case element 10 of a planiform shape, and which may be made in a size approximating the size of the ordinary playing card, and which will have a thickness substantially the same as that shown in Figure 2, or less. The case consists of a bottom plate or sheet 11 of rectangular form, and which may be made of metal, in which event it would be much thinner than illustrated, or it may be made of ply-board, or other sheet materials including Celluloid and synthetic gums, and other plastics.

Secured upon the top side of this sheet there are border strips 12 and 13, respectively, at the left hand and top edges, and narrower border strips 14 and 15 at the right-hand and bottom edges, these strips defining a space 17 within the boundaries of the plate 11, in which said operative devices move, as will be described. The case as thus formed may be of various proportions, between its boundaries, to adapt it for extensive uses, but for the particular vest pocket device here presented its length from top to bottom is nearly two-thirds greater than its width.

Across the lower half of the case there is a lower cap plate 18, of rectangular form, covering the lower half of the case nearly, but stopping a little short of the medial transverse line across the top of the case, at which part the plate 18 has a rectilinear edge 19. Secured on the upper portions of the strips 12, 13 and 14, there is a plurality of thin top plate sections 20, the outer ones at each side extending flush with the outer edges of the strips 12 and 14, respectively, while the remaining ones are spaced inwardly thereof and spaced from each other, extending longitudinally of the case, so as to form narrow slots or slits 21.

All of these strips 20 extend from the top end of the case longitudinally downward, and stop short of the transverse medial line of the case, so that their lower edges, which aline, are spaced from the top edge 19 of the plate 18, so as to form a wide transverse slot 22. The strips 20 are secured to the top border strip 13, and are arranged to bear inwardly upon interposed slides 23, which are set in the space 17 for movement from one end of the case to the other. These slides consist of elongated strips or small slats of a suitable sheet material fitting snugly between the

able sheet material fitting snugly between the

back plate or sheet 11, and the top plate elements 18 and 20 previously described. The slides are in a number equalling the number of slits 21 in the upper part of the case, and the aggregate width of all of the slides equals the distance between the border strips 12 and 15, so that when all of the slides are laid in the space 17 extend longitudinally, and each resting upon the back plate 11, they fit snugly against each other, and they may be made sufficiently over-size initially, to insure a slight binding action, if desired, although it is preferable that the frictional means for holding the sides in adjusted position shall be the back plate 11 and the several top plate elements described. If the top plate elements and case are made of a material more rigid or dense than paper, the strips 20 may be readily formed so as to press inwardly as springs against the underlying slides 23.

The length of the slides 23 is such that when all are at the lower limit of their movement, resting against the lower border strip 15, the upper ends of the slides extend a distance above the lower or inner ends of the strips 20. Correspondingly, when the slides are at the upper limit of their movement, their lower ends extend below the edge 19 of the plate 18, so that the lower ends of the slides will always be held snugly between the plates 11 and 18. Each of the slides is provided with a finger piece and pointer 24, which, in the present instance, in each case, consists of a small piece of wire having a stud portion 25 set in the extreme upper end of the respective slide, and extending normally to the plane of the slide, and immediately outward of the plane of the faces of the strips 20 the wire is bent at right angles so as to extend longitudinally from the slide, and at its upper extremity is again bent laterally at right angles, so as to extend partly across the face of the adjacent strip 20 at the left, as shown in Figure 1. Fixed on the extremity of the wire, there is a small lateral pointer or arrow 26, which serves as a finger piece by which the slides may be manually moved.

It will be seen that when the slides are at the extremity of the longitudinal movement toward the bottom of the case, their upper ends will extend above the lower ends of the strips 20, and correspondingly, when the slides are at the upper limit of their movement in the case, the lower ends will extend below and beyond the top edge 19 of the plate 18, so that at all times the slides are held frictionally between the back plate 11 and the plate 18.

In the present instance there are shown nine slides, underlying a corresponding number of the slits 21, these slits being aligned with the medial longitudinal axes of the slides, so that each slide is partly overlaid by two strips 20. The nine strips, counting from the left side of the case, are formed with longitudinal series of characters, the first two at the left having alphabetical characters 27, throughout their length, while the remaining strips of the series of nine have the nine digits and cypher of the Arabic system, and a top symbol 29. There are thus eleven characters or symbols on each of the seven strips at the right-hand part of the series of strips, and in the present instance, there are shown a corresponding number of alphabetical characters or letters 27 on the two strips at the left, but it is not necessary that the number of characters on all of the strips shall be the same, and a complete alphabet may be represented upon the two strips at the left, a portion only of the alphabet being repre-

sented in the present case for convenience in illustration. A blank space is formed at the bottom of each strip 20.

It is important to note that the order of the characters runs from bottom to top of the strips 20, in accordance with alphabetical sequence and numerical sequence. On each of the slides 23 there is represented a series of characters identical with those on the strips 20 to the left of the respective slides as positioned in the case, but arranged inversely, so that the sequence is from top to bottom on the slides, instead of from bottom to top, as on the strips 20. It is also important that the number identity and of spacing of the characters of the slides 23 shall be the same as those on the strips 20 at the left of each respective slide, and that the characters of all of the slides begin at a distance from their upper ends, so that when all of the slides are at the lower limit of their movement in the case, blank portions of the slides will appear under the slot 22, and the respective pointers on the slides will be located over a blank space at the bottom of the respective strips 20 to the left. The first character of each series on the slide is so spaced from the upper end of the slide that when the slide is moved upwardly with the pointer 26 indicating the first character on the strip 20 on the left, the corresponding character on the slide will be aligned with the slot 22, and the spacing of the characters on the slide being the same as the spacing of the characters on the strips 20, as the pointer is moved to successive characters on the strip 20, the corresponding characters on the slide will appear in the slot 22.

By this construction, when a person wishes to note a telephone number, for instance, the first two slides are operated by their finger-pieces 24 so as to move the pointer or index 26 into opposition with the corresponding letters involved in the telephone number ordinarily, and the proper number of slides to the left of the first two are then operated in the same way, to expose the desired number in the slot 22. This being done, the user may carry the device from the telephone book to the telephone instrument and ask the telephone operator for the number as he reads it from the characters exposed in the slot 22, or may dial the number by taking the characters in succession from left to right, as they appear in the slot 22. The memorandum may be preserved for future reference by leaving the slides in their position, and inserting the device in a notebook or in the pocket, as may be convenient. In case of telephone numbers in large cities which involve the separation of characters by dashes or periods, the uppermost symbol 29 may consist of such dashes or periods, as illustrated, so that the number when set up may be suitably hyphenated, as shown in the slot 22 in Figure 1, where the characters "AT 4-6975." appear which would correspond to a number in a telephone exchange having the name "Atlantic," or such other name as might be adopted for the exchange by the telephone company. In the same way, the device may be utilized to make a memorandum of an automobile plate number by simply operating the proper number of slides excepting the two at the right hand side of the case, or these two may be operated to present an abbreviation of the State in which the license number was issued, or may be utilized to show such letter as may be given on a license plate, as is the practice in some jurisdictions.

In Figures 5 to 8, the device has been modified

to present the slide in a less expensive construction, not requiring pointers, and also an improved means for holding the slide in adjusted position, is shown. In this instance, the case 10' may be made up in any usual way to present a space 17' therein, corresponding to the space 17 before involved, in which a multiplicity of slides 23' are operative in an arrangement corresponding to that shown in Figures 1 to 4. In the device shown in Figures 5 to 8, however, the characters on the slide and on the case are arranged so that one of the longer edges of the case forms the bottom, indicated at 31. The case includes a top plate 32 extending across one end and stopping short of the medial minor axis of the case a distance, but in place of top plate elemental strips as in the first described form of the article, the case remains open throughout its half length from the plate 32 to the end border strip 33 at the right, and hinged on this border strip 33 there is a planiform plate 34 adapted to cover the space between the strip 33 and the top plate 32, and to extend slightly beyond, in overlapping relation to the plate 32. However, a wide slot 35 is formed in the cover, one edge of which is alined with the adjacent transverse edge of the plate 32 when the cover 34 is closed, and the opposite edge is parallel thereto at a distance adapted to expose the characters on the slides 33'.

The slides in this last mentioned device are of such length that when at the right-hand limit of their movement, their ends extend beyond the slot 35, and the slides are preferably also of such length and the boundary of the space 17' at the right is so located that when the slides are moved to the right-hand limit of their sliding movement, a portion of their left ends will be retained under the plate 32. In the portions of the slides which underlie the slot 35 when they are at their left-hand limit of movement or inoperative position, suitable openings 36 are formed in the slide, into which the point of a pencil or other instrument or article may be inserted to serve as a means for moving the slides longitudinally in the case. Each of the slides is formed with a series of characters, certain of the slides having alphabetical characters reading in sequence from the right-hand ends of the slides toward the left, while other slides have numerical series characters thereon, reading in a similar direction, and at the extreme left of the series of characters, symbols such as dots or dashes may be formed on the slides, if desired. In the present case, corresponding series of characters 37 are formed on the bottom plate 30 of the case in the portion of the space 17' intervening between the ends of the slide 23' and the right-hand border strip 33, these characters being arranged in series alined with respective slides, and having the same characters therein arranged inversely with those of the respective slides. The openings 36 are of such size as to enable any of the characters alined therewith at 37 to be read through the opening when the opening is brought over such character, and the position of the series of characters on the slide is such that when an opening 25 is registered with one of the characters 37, the corresponding character on the respective slide will be exposed under the slot 35. The cover 34 as before stated, is hinged at the right hand end of the case, and is provided with spring devices 33 by which it is held yielding in closed position as shown in Figures 5 and 7, and the underside of the cover has secured thereon a sheet of felt or other fric-

tional fabric 39, of such thickness as to engage the surfaces of any slide which may have been pulled over the characters 37, so as to hold the slides in positions with the corresponding characters exposed under the slot 35. The cover is also provided with a finger-piece or lip 40, under which the finger-nail of the user may be inserted to lift the cover, so as to permit viewing the characters 37 when the slides are to be operated.

The last described form of device illustrates the use of a greater number of slides so that various memoranda of numbers may be set thereon if desired, or other uses made of the article, and its manipulation otherwise being the same as the operation of the device of Figures 1 to 4, as before described, with the exception that instead of pointers, the slides are pulled until the desired characters 37 appear in the openings 36.

In Figures 9 to 12, a further modification of the article is shown, in which the case 10—a is made up substantially in the same manner as the device of Figure 1, but in the present instance, a top plate 41 is illustrated, in which elements corresponding to the plate 18 and the strips 20 are all formed integrally in one sheet, constituting a top plate for the case, in which a wide slot 42 is formed, alined with the minor axis of the case in its major plane, from which longitudinal slits 43 extend toward the right-hand end, corresponding to the slit 21, before described. The arrangement and characters on the slides 23—a and the tongue elements 20—a (corresponding to the elements 23 and 20) are the same as described in connection with Figures 1 to 4. The inner ends of the slides, however, are formed with upturned tongues 44, the slides in this instance being formed of sheet metal, preferably, and the ends of the slides are extended somewhat further beyond the first characters on each than was involved in the devices of Figures 1 to 4. In addition, a slotted pressure plate 45 is secured across the case, in alinement with the slot 42, and having a slot 45 therein alined with the slot 42, means being provided to adjust the pressure of this plate if desired, and in the present instance this pressure means is represented merely by screws 47 engaged through the plate 45 and into the material of the case underlying the plate 41, at the ends of the plate 45. The tongues 44 project slightly above the top face of the plate 45, so that they may be individually engaged by the finger-nail of the user of the device, and moved to the right in the slits 43 to adjust the slides in relation to the characters on the top plate in the same manner as the slides 23 were adjusted with respect to the characters on the strips 20.

Parts not specifically described in this last mentioned modification and corresponding to those of the parts of Figures 1 to 4 are indicated by the same reference characters with the addition of the character a, and parts in Figures 5 to 8, likewise, corresponding to parts of Figures 1 to 4, and not otherwise described are indicated by the same reference characters as in the first four figures with the addition of the prime mark.

While I have disclosed specific constructions of my invention, it will be appreciated that various modifications in the construction, arrangement and combination of parts, substitution of equivalents and materials may be made without departing from the spirit of the invention, except as more specifically defined in the appended claims.

I claim:

1. A device of the character described consist-

ing of a case body having a plurality of elongated slides arranged in longitudinal abutting relation movable therein and having an initial position at one part of the case, each having a series of characters in a given order thereon, and a corresponding respective series of characters for each slide on the case arranged in inverse order opposite the initial position of the slide, said slides having operating means at their ends adjacent the characters on the case, said case being constructed with a transverse slot to expose characters on all slides when moved from initial position, said operating means consisting of an opening in each slide next the characters on the case, and each series of characters being arranged on the back material of the case in alignment with respective slides so as to be registered with said opening of the respective slide selectively, said case being open over the portion bearing said characters, and a hinged cover thereon movable to close said open portion, and having a slot thereacross arranged to expose one character on each of all the slides when the latter are moved from initial position.

2. A device of the character described consisting of a case body having a plurality of elongated

slides arranged in longitudinal abutting relation movable therein and having an initial position at one part of the case, each having a series of characters in a given order thereon, and a corresponding respective series of characters for each slide on the case arranged in inverse order to the initial position of the slide, said slides having operating means at their ends adjacent the characters on the case, said case being constructed with a transverse slot to expose characters on all slides when moved from initial position, said operating means consisting of an opening in each slide next the characters on the case, and each series of characters being arranged on the back material of the case in alignment with respective slides so as to be registered with said opening of the respective slide selectively, said case being open over the portion bearing said characters, and a spring-loaded hinged cover on the case movable to close said portion yieldable to manual opening, said cover having frictional material thereon to bindingly engage all slides moved from initial position, and being constructed to expose the surfaces of all the slides at one side of the said open portion.

SOLOMON AXELROD.