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I. E. HITT

APPARATUS FOR TAKING FINGERPRINTS

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Fig. 1

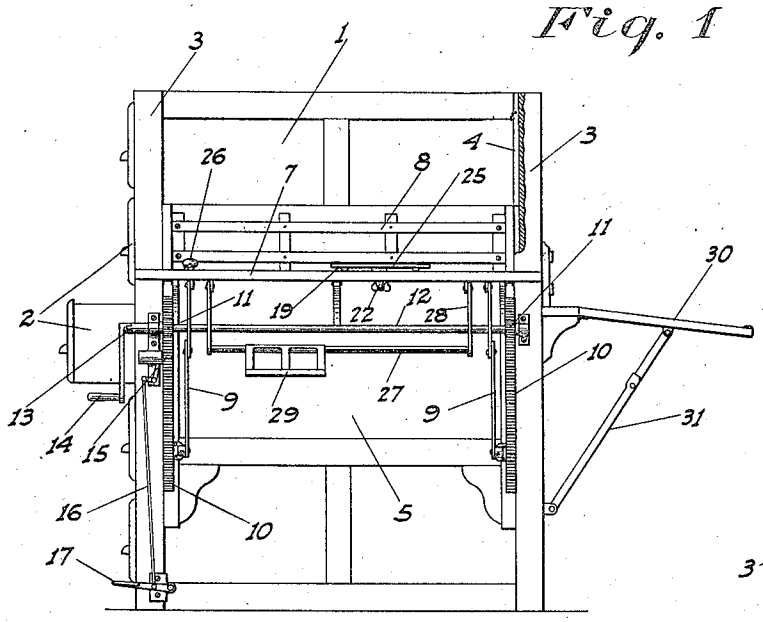


Fig. 2

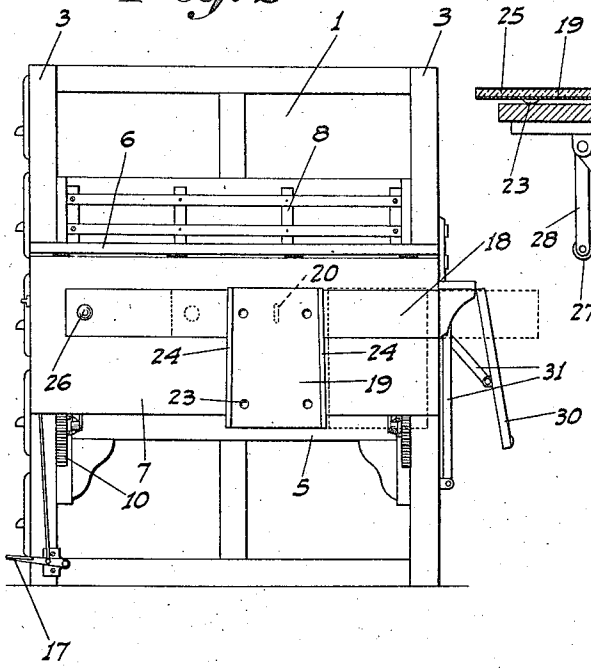
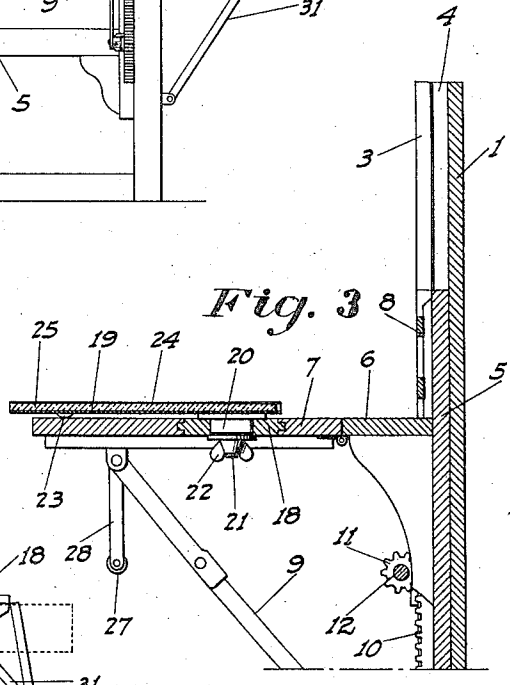


Fig. 3



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR TAKING FINGERPRINTS.

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This invention relates to improvements in devices used in connection with the identification of criminals and suspects, such identification in all modern establishments including the taking and recording of the prints of all the fingers of both hands of the person. The finger prints are taken by means of a plate of glass or similar material on which ink is smeared; the operator rolling the fingers of the person whose prints are to be taken, one at a time, on the plate and then impressing the inked finger on a piece of paper disposed adjacent the plate. The plates are small for the sake of convenience and therefore in taking prints of both hands the person is not in the correct position relative to the plate for either one hand or the other and the plate or the person must be shifted accordingly. Further, as will be evident, the heights of the persons being identified vary considerably. At present however the glass plate is merely mounted in a definite position or laid on a shelf or table of fixed height, so that the persons must accommodate themselves to this fixed height. If the ink plate is fixed, the persons must also move from one side to the other in order to conveniently enable their right and left hands to be placed on the plate at different times. If the plate is free, the operator pushes the same back and forth and fouls his hands with the ink. Further, with a free plate, so much pressure may be put on the same by a nervous or obstreperous prisoner as to cause the plate to topple from the shelf, especially if the plate is projected beyond the edge of the shelf. This latter feature however is very desirable, since persons having misshapen hands or stiffened fingers otherwise have difficulty in straddling the thickness of the shelf and plate combined. The above features are very unsatisfactory in devices of this character which deal almost entirely with prisoners who are mostly of anti-social tendencies. In other words, the taking of their finger prints is done against their will and they have an instinctive resentment to being under the orders of the officers of the law. The present method therefore of having the prisoner stretch or cramp himself to accommodate his hands to a plate mounted at a fixed height; and of being moved back and forth by the attendant in order to bring his hands in proper relation to the plate, merely increases the resentment which he feels and very frequently makes him stubborn to handle.

The principal object of my invention therefore is to eliminate the above defects in the present identification apparatus, by providing for a movable yet rigid ink plate and a vertically adjustable shelf on which the plate is mounted, and from the front edge of which the plate projects to present a thin edge to the hand. The plate is moved by the attendant from a point to one side of the shelf, and the shelf is also raised or lowered by him according to the needs of the prisoner and without the latter having to shift his position at any time or be inconvenienced in the slightest. This not only has a tendency to leave the prisoner in a better frame of mind after identification proceedings have been completed, but lessens the work of the attendant and speeds up proceedings generally—a factor of vital importance when a large number of prisoners is being handled.

A further object of the invention is to arrange a cabinet in connection with the above features, said cabinet having drawers of different sizes in which the various implements used in connection with the device may be kept and in which the identification cards and other records may also be stored. I have also provided in addition to the shelf on which the ink plate is mounted another and independent shelf or desk at which the prisoner may sit to sign his name on the identification card, this being required on all records. The two shelves are adapted to fold down when not in use so that the cabinet may be placed in the middle of a room so that it is accessible from all sides and yet takes up but very little space when not in use.

It will therefore be seen that my complete apparatus provides a single unit in which all features necessary to identification purposes are accommodated so that they may be compactly arranged and within reach of the attendant with but very little movement on his part being necessary.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of

such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a front view of my improved apparatus with the shelves extended.

Fig. 2 is a similar view showing the shelves folded down.

Fig. 3 is a fragmentary cross section of the apparatus.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a cabinet of suitable size and preferably of rectangular form and having at the back and in one side thereof a plurality of drawers 2 of suitable character to receive identification cards, material and implements and accessories to be used in connection with the apparatus. Mounted at the front of the cabinet and at the ends thereof are uprights 3 forming vertical grooves 4 with the adjacent face of the cabinet. Extending between and guided in the grooves 4 is a vertical back member 5 from which, between the uprights 3, a narrow rigid shelf member 6 projects outwardly and horizontally. Hinged onto the outer edge of the member 6 and projecting outwardly therefrom is the main shelf member 7, which, when in horizontal position, is alined with the member 6 so that the two together form a continuous shelf. A rack structure 8 is mounted in connection with the member 5 above the member 6 to receive a supply of the cards or sheets of paper used in connection with the identifying operations.

The shelf member 7 is normally held in an extended position by foldable brace means 9 of suitable character depending therefrom and connected at their lower ends to the member 5 a suitable distance below the shelf. Fixed on the member 5 adjacent the uprights 3 are vertical racks 10 which are engaged by pinions 11 mounted on a common shaft 12 which is journaled onto the uprights 3. At the left hand end of said shaft the same is formed with a clutch structure indicated generally at 13 to cooperate with the similarly formed hub of a removable crank handle 14. By means of this structure it will be seen that upon turning the shaft 12 one way or the other by means of the handle the member 5, together with the shelf supported thereby, will be raised or lowered relative to the cabinet. To hold the member 5 stationary at any level to which it may be set by the turning of the shaft, I provide a horizontally movable stop member 15 which is mounted in fixed connection with the left hand upright 3 and normally projects between a pair of adjacent teeth of the adjacent rack 10. This stop member 15 is withdrawn from between the rack teeth at will by means of a lever and link structure indicated at 16 which is connected to a depressible pedal 17 mounted on the upright 3 near the floor.

Slidably mounted between the hinged and outer edges of the shelf 7 is a longitudinal slide 18, arranged for movement longitudinally of the shelf. This slide is flush with the shelf so that when contracted it forms a portion thereof, its outer end then being flush with the corresponding end of the shelf, as shown in Fig. 2. Fixed on the slide intermediate its ends and projecting thence over the shelf 7 to a point somewhat beyond the outer edge thereof is a plate 19. This plate is removably but non-turnably mounted on the slide by means of a non-circular lug 20 depending therefrom and which fits in a similarly shaped slot in the slide. The lower end of this lug has a threaded stem 21 on which is screwed a wing nut 22 which is adapted to bear against the under side of the slide and thus clamp the plate 19 in position. The plate also has suitable spaced depressions 23 which rest on the shelf 7 outwardly of the slide, so that said plate is supported against deflection while at the same time the frictional resistance of said plate against the shelf is not sufficient to prevent the plate moving readily along the shelf with the movement of the slide. The opposite side edges of the plate 19 are curled upwardly as at 24 to form guide members for a glass plate 25 on which the ink for finger print purposes is received. The guides of the plate 19 converge from front to back of said plates slightly, and the glass plate is of similar form, so that it may be wedgingly yet removably fitted in the guides from the front end of the plate 19. This prevents the backward pressure naturally exerted by the fingers being imprinted from tending to shift the ink plate. The ability to store the glass plate, and protect the same from dust and from drying off, enables one application of ink to last much longer than is otherwise the case.

In order to easily manipulate the slide, a knob or hand grip 26 projects upwardly from the same adjacent its left hand end. Depending below the shelf 7 is a horizontal rod 27 which is supported from said shelf by swinging arms 28. This rod forms a convenient means for receiving and holding the usual paper clamp 29 when not in use.

Mounted on the right hand side of the cabinet and projecting outwardly therefrom is another hinged shelf 30. This shelf is foldable against the side of the cabinet, as shown in Fig. 2, but is normally prevented from such folding movement by foldable brace members 31 of suitable character.

In operation the person whose prints are to be taken stands at a position in front of the shelf 7 (the latter being raised) such

that his left hand is convenient to the ink plate 25 when the slide is retracted. The operator standing at the left of the apparatus then raises or lowers the shelf if necessary so as to bring it to a height convenient to the prisoner, removes the clamp 29 from the rod 27 and places said clamp over the outer edge of the shelf 7 with a sheet of paper thereunder on which the finger prints are to be marked. He then proceeds to roll the various fingers of the prisoner's left hand successively first on the ink plate and then on the recording sheet, as is customarily done. This done and without the prisoner having to shift his location, the operator slides the member 18 toward the right so that the ink plate is conveniently located with respect to the right hand of the prisoner. The finger printing operations are then repeated.

The finger print recording being done, the prisoner moves to a position adjacent the shelf 30 adjacent which he takes a seat so that he may use said shelf as a desk on which to sign his name to the print recording sheet. When the identification proceedings are completed the recording sheet may be placed in one of the drawers of the cabinet kept for the purpose, the clamp 29 is returned to its position on the rod 27, while the glass plate is removed from its holder and placed in one of the drawers 2 along with the handle 14 and any other accessories which may have been utilized in carrying out operations. The two shelves are then folded down so as to be out of the way of persons moving about the office in which the cabinet is located.

The shelf 7 in particular is metal covered, so as to be very easily kept clean.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. An apparatus for use in taking finger prints including a horizontal shelf, a support for an ink plate mounted in fixed connection with the shelf, and means for moving the support longitudinally of the shelf.

2. An apparatus for use in taking finger prints including a horizontal shelf, means for adjusting said shelf vertically, a support for an ink plate mounted in fixed connection with the shelf, and means for moving the support longitudinally of the shelf.

3. An apparatus for use in taking finger prints including a horizontal shelf, a support for an ink plate mounted in fixed connection with the shelf, the upper face of the support along the opposite side edges thereof transversely of the shelf having opposed grooves to slidably receive the edges of the ink plate.

4. An apparatus for use in taking finger prints including a horizontal shelf, means for adjusting said shelf vertically, means for enabling the shelf to be folded down regardless of its vertical position, and a support for an ink plate mounted in fixed connection with the shelf.

5. An apparatus for use in taking finger prints including a horizontal shelf, a longitudinal slide mounted in connection with the shelf and disposed between the longitudinal edges thereof, and a support for an ink plate fixed on the slide and projecting to the outer longitudinal edge of the shelf.

6. An apparatus for use in taking finger prints including a horizontal shelf, a longitudinal slide mounted in connection with the shelf and forming a part thereof, said slide extending substantially the full length of the shelf, a support for an ink plate fixed on the slide toward one end thereof and projecting to the outer edge of the shelf, and a hand-grip on the slide adjacent the opposite end thereof.

7. In combination, a cabinet, a foldable shelf member mounted on one side of the cabinet, another foldable shelf mounted on another side of the cabinet, and a support for an ink plate mounted in connection with the last named shelf.

8. An apparatus for use in taking finger prints comprising a vertical element, a vertical supporting member behind said element and including guide means for the opposed vertical edges of the element, a horizontal shelf projecting outwardly from the element, and means between the element and supporting member for moving the element vertically.

9. An apparatus for use in taking finger prints comprising a vertical element, a vertical supporting member behind said element and including guide means for the opposed vertical edges of the element, a horizontal shelf projecting outwardly from the element, a vertical rack on the element, a turnable gear on the support engaging the rack, and a releasable foot-actuated catch engaging the rack.

10. An apparatus for use in taking finger prints comprising a vertical element, a vertical supporting member behind said element and including guide means for the opposed vertical edges of the element, a horizontal shelf projecting outwardly from the element, and including an inner portion fixed onto the element and an outer portion hinged onto the inner portion, whereby said outer

portion may be folded down, foldable brace means between the element and outer portion normally preventing folding of the shelf, and means between the supporting members and element for moving the latter vertically.

11. An apparatus for use in taking finger prints comprising a vertical element, a vertical supporting member behind said element and including guide means for the opposed vertical edges of the element, a horizontal shelf projecting outwardly from the element, and including an inner portion fixed onto the element and an outer portion hinged onto the inner portion, whereby said outer portion may be folded down, means normally preventing such folding movement, means for moving the element vertically, a longitudinal slide incorporated with the outer shelf portion, and a support for an ink plate mounted on the slide.

12. An apparatus for use in taking finger prints including a horizontal shelf, and a thin holder for removably supporting an ink plate rigidly mounted on the shelf and projecting beyond the forward edge thereof.

13. An apparatus for use in taking finger prints including a horizontal shelf, a clamp to straddle the shelf and engage a recording sheet placed on the shelf, and a holder for supporting the clamp when not in use, mounted in conection with and under the shelf.

14. An apparatus for use in taking finger prints including a horizontal shelf, a V shaped clamp to straddle the shelf and engage a recording sheet placed on the shelf, a rod extending lengthwise under the shelf to support the clamp when not in use, means for folding the shelf downwardly, and arms on which the rod is mounted depending from and pivoted on the shelf.

In testimony whereof I affix my signature.

IVAN E. HITT.