July 28, 1936.
B. B. MORAN
$2,048,879$
MEANS OF TRANSMITTING FINGERPRINT CHARACTERISTICS
Filed July 2, 1932



RTEG:


# UNITED STATES PATENT OFFICE 

2,048,8\%9<br>MEANS OF TRANSMITTING FINGERPRINT CHARACTERISTICS

Boyd B. Moran, San Diego, Calif.<br>Application July 2, 1932, Serial No. 620,721<br>1 Claim. (Cl. 33-1)

My invention relates to means of transmitting fingerprint characteristics, and the objects of my invention are:-

First: To provide a means whereby positive identification of a fingerprint record may be made without having the fingerprint in question available for visual comparison with the record;

Second: To provide a means of this class whereby complete information regarding a fingerprint may be sent by telegram or other written suans of communication or orally with the assurance that positive identification can be made from the information;
Third: To provide a means of this class which is particularly suited for use in conjunction with the present method of classifying fingerprints, and-

Fourth: To provide on the whole a novel means of transmitting fingerprint characteristics which is efficient, accurate and which in no manner requires mutilation or damage to the fingerprint record.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon which form a part of this application, in which:
Figure 1 is an elevational view of a conventional fingerprint magnifying means incorporating my novel means used to determine the fingerprint characteristics to be transmitted; Fig. 2 is an elevatonal view of my means for determining and codifying fingerprint characteristics; Fig. 3 is an enlarged sectional view through 3-3 of Fig. 1 , showing the manner in which my means is placed over a fingerprint and the necessary information derived.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawing.

The usual fingerprint magnifier comprises a U-shaped base portion I from which extends an upwardly directed post or pedestal 2 arranged at its upper end with a horizontally disposed loop 3 positioned over the opening in the base $I$ and arranged to support a magnifying element 4.
My means for transmitting fingerprint char-
acteristics comprises a flat metallic ring 5 which supports a flat transparent disk 6. On the under side of the disk 6 there is etched groups of par-
allel disposed lines 7 intersecting each other at right angles so as to form a plurality of small squares 7a. Along one side there is provided a column of numerals $7 b$, one numeral corresponding to each row of squares. At the top of the group of squares there is provided a row of letters, designated lic, corresponding to the several columns. My means is secured to the under side of the $U$-shaped base 1 by screws 8 , or the like, in such a manner as to register with the 10 magnifying element 4.
When the magnifier with my means is placed upon a fingerprint various identifying characteristics, such as the cores of loops, or whorls, deltas, ridge ends, islands, bifurcations, or scars or muti- 15 lations, appear in the various squares.
My means of transmitting fingerprint characteristics consists in noting the various distinguishing features and identifying them by the numerals $\mathbf{7 b}$ and the letters $7 c$. As for example, 20 the fingerprint shown in Fig. 3 has a loop with a core I located at the intersection of row 6 with column E, in other words at 6E. Other characteristics are a delta at 8H, designated II, a small scar 4G, designated III, an island extending from 25 2 H into 2 I , designated IV, a ridge end at 5 E , designated $V$, and a bifurcation at 9B, designated VI.

The particular fingerprint illustrated was taken from a record which has a general classification, 30 indicated thus-

$$
\begin{array}{llllllll}
1 & U & 0 & 0 & 0 & 1 & 6 \\
1 & U & I & 0 & 0 & I & 9
\end{array}
$$

The above code enables the searcher to select a 35 relatively small group of fingerprint records to which he may apply the information transmitted by my means. As for example, the information relative to my particular means is added to the information now customarily sent in somewhat the following manner:
CHARACTERISTICS RIGHT THUMB CORE
SIX-E DELTA EIGHT-H MUTILATION FOUR-G ISLAND TWO-H-I RIDGE END FIVE-E BIFURCATION NINE-B
The searcher then places the glass disk 6 , similar to the one used by the party requesting the information, over the corresponding fingerprint of the group which he has selected in such a manner that the core and possibly the delta fall in the designated squares and then notes whether or not the other characteristics fall in the remaining designated squares.

Though I have shown and described a particu- 55
lar construction, combination and arrangement of parts and portions, and a certain means of transmitting fingerprint characteristics, $I$ do not wish to be limited to this particular construction combination and arrangement, but desire to include in the scope of my invention the means substantially as set forth in the appended claims. Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

In a means for determining and codifying fingerprint characteristics, the combination of a ring member adapted to receive a fingerprint in
its open portion, a transparent disk supported on said ring over said opening, a plurality of squares delineated on said disk arranged in rows and columns, indicia for designating said rows and columns of squares at the sides thereof, a Ushaped base portion secured to said ring and extending at the sides of said transparent disk provided with an upwardly directed post, a horizontally disposed loop secured at the upper end of said post positioned over the opening in the base, and said transparent disk, and a magnifying element screwably mounted in said loop.

