Jan. 22, 1935. D. D. STONECYPHER 1,988,634

DIAGNOSTICUM

Filed Aug. 31, 1933 2 Sheets-Sheet 1

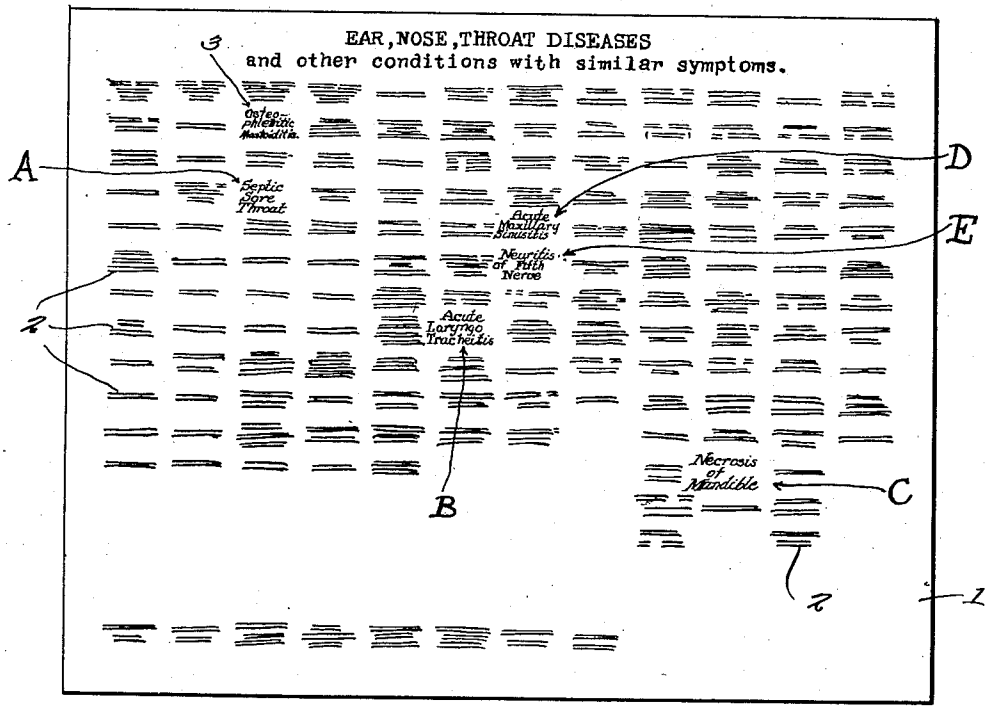

Fig. 1.

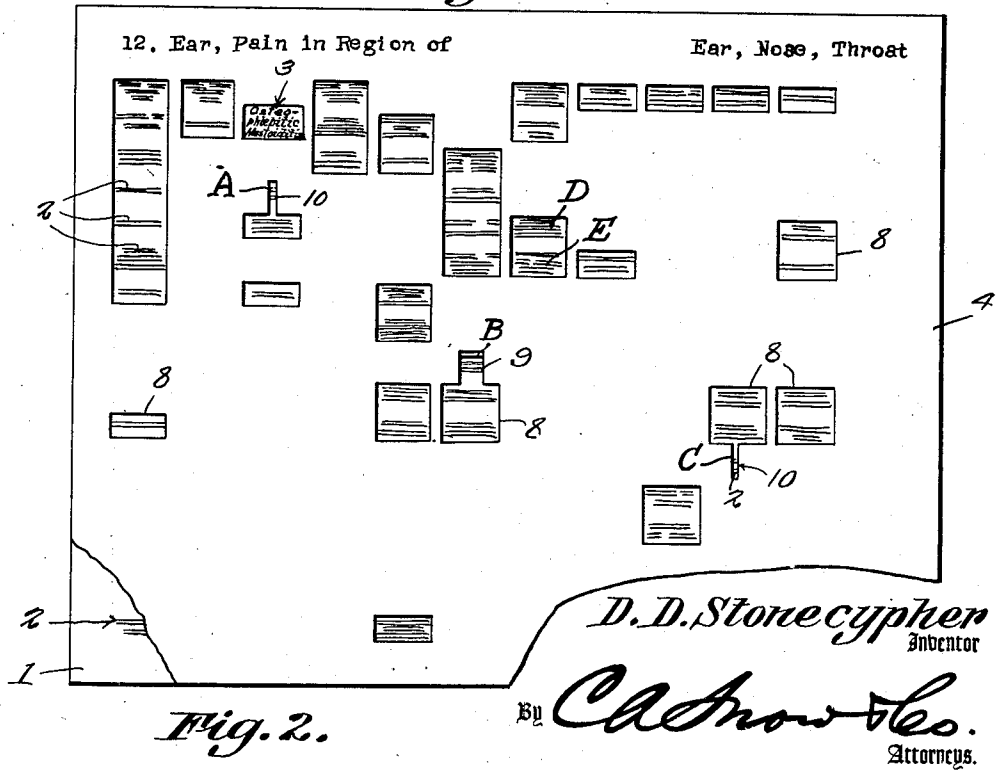

Fig. 2.

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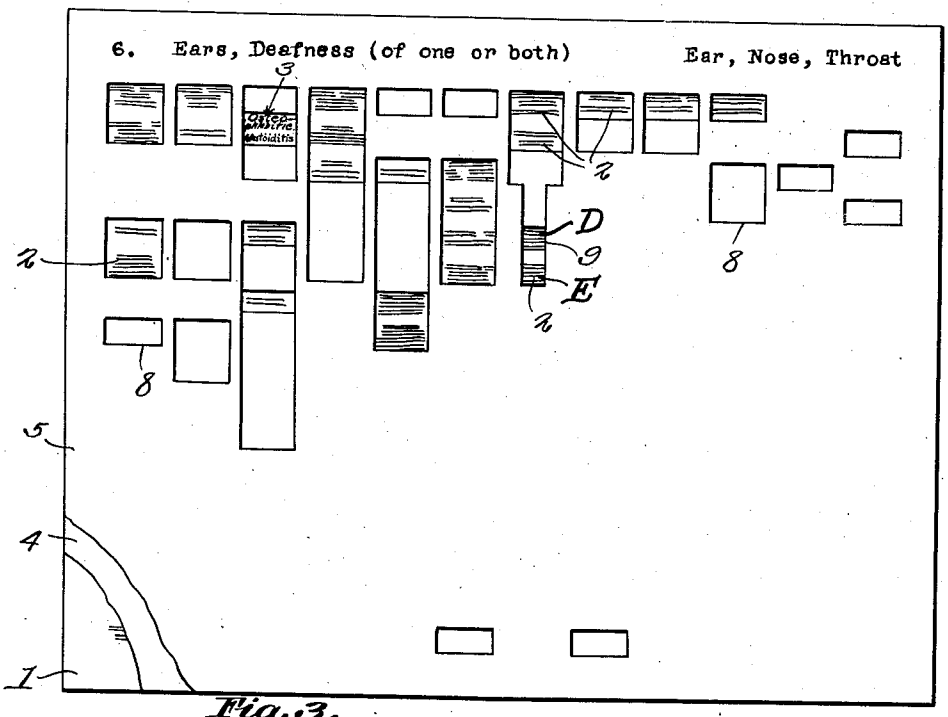

Fig. 3.

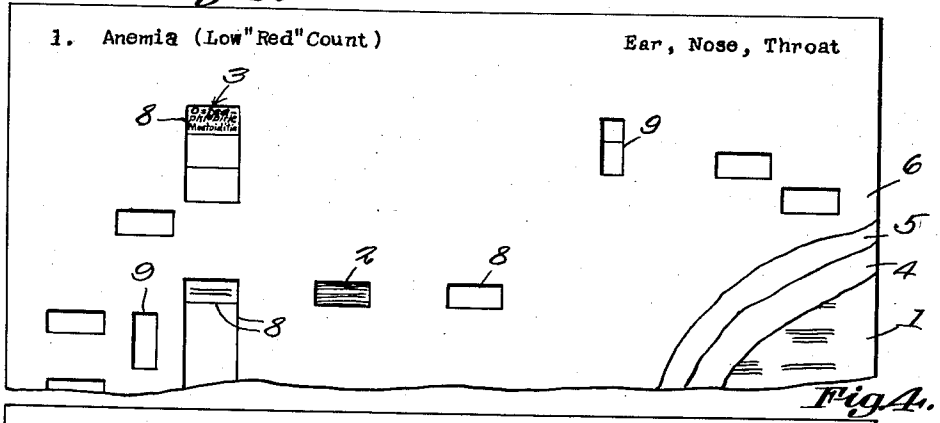

Fig. 4.

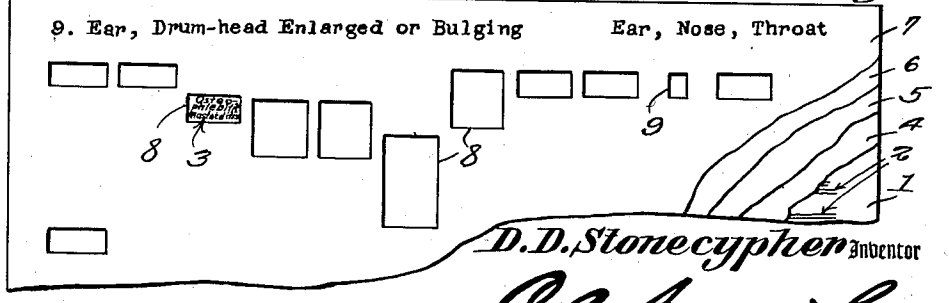

Fig. 5.

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UNITED STATES PATENT OFFICE

1,988,634

DIAGNOSTICUM

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Application August 31, 1933, Serial No. 687,702

1 Claim. (Cl. 35—12)

This invention relates to a means for determining diagnosis and while it is more especially designed for the diagnosis of diseases it can be used efficiently in other fields of investigation or classification, the existence of any cause, fact or category being sought or ascertained by a study of the known effects thereof, or of the known related facts, figures or other data, the various combinations of which are such as to indicate with varying degrees of probability, the causes, facts or categories sought.

While it is not new in the art of classification to obtain a diagnosis or ultimate result through a process of elimination based upon ascertained facts, no means thus far have been provided whereby indications of certainties, probabilities and possibilities have been possible.

It is an object of the present invention to provide a key card or the like on which are arranged all possible conclusions apertaining to the subject under investigation and to employ in connection therewith screen cards or the like selected because of predetermined symptoms or other characteristics and provided with openings through which will appear those conclusions portrayed on the key card which contain the symptoms or characteristics indicated by the particular key card.

It is a further object to provide screen cards or the like having openings of different sizes to indicate whether or not the exposed conclusions are certain, probable, or possible where the selected symptoms or characteristics are present in the matter under investigation.

In applying the improvements to diagnosis of diseases the result is obtained through the knowledge of symptoms of the various diseases under consideration, it being understood that the invention is to be used only where all of the symptoms point to a single disease.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts and in certain steps of the method hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts and in the disclosed method without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:

Figure 1 is a plan view of a key card for use in diagnosing diseases of the ear, nose and throat.

Figure 2 is a similar view showing a symptom or screen card applied thereto for eliminating some of the indicated diseases and for partly eliminating other diseases in different degrees to indicate probabilities and possibilities of their presence.

Figure 3 is a view similar to Figure 2 showing an added symptom or screen card whereby further diseases are eliminated from consideration either partly or entirely.

Figure 4 is a view similar to the preceding figures wherein a third symptom or screen card has been placed in position and additional diseases have been eliminated.

Figure 5 is a similar view showing the addition of another symptom or screen card resulting in the elimination of all but one disease, thereby giving a final and definite conclusion based upon the indicated symptoms.

Referring to the figures by characters of reference 1 designates a card screen or the like on which are printed or otherwise displayed the names of various diseases and other conditions possible where ailments develop in the ear, nose and throat. These names, which have been indicated generally at 2, 3, A, B, C, D and E are spaced apart in their respective columns.

Associated with each key card 1 is a series of symptoms or other screen cards some of which have been indicated at 4, 5, 6 and 7. One of these cards is provided for each symptom present in one or more of the diseases listed on the key card. For example, the symptom or screen card 4 is provided for indicating those diseases in which a symptom is a pain in the region of the ear. Openings are formed in this card 4 as shown at 8 and are so located as to fully expose the names of those diseases in which a pain in the region of the ear is a certain or positive symptom. In some diseases such a symptom indicates probability of those diseases while in some other diseases a pain in the region of the ear indicates only a possibility of those ailments. For the purpose of indicating these distinctions of certainties, probabilities and possibilities, the openings are made of different widths. The full width openings fully exposing the names of the ailments thereunder and designated at 8 indicate certainties. Narrower openings exposing only portions of the names of the ailments thereunder indicate probabilities and have been designated at 9. Narrower openings or slits through which the indicated ailments are barely visible, indicate possibilities. These have been illustrated at 10.

By referring to Figures 1 and 2 it will be noted that when the card 4 is applied various ailments,

including osteophlebitic, mastoiditis, indicated at 3 will be exposed whereas certain other ailments will be only partly exposed. Among these are "Septic sore throat" indicated at A and "Necrosis of mandible" indicated at C, both of which are only partly exposed through very narrow slits 10 thereby indicating that there is a slight indication of these ailments or, in other words, that there is a possibility of either ailment being present. Another ailment indicated at B, namely, "Acute laryngo-tracheitis" is exposed to a greater extent by the wide slot 9 thereby indicating a probability of that ailment.

Following the application of the symptom card 4 the diagnosis can be continued by placing thereover cards identified by other symptoms. For instance, if the patient is deaf in one or both ears, the card 5 is placed over card 4 as in Figure 3. This results in covering up those diseases in which deafness is not a symptom and leaves a reduced number of ailments in which deafness is either a certainty or a probability. Among those ailments thus eliminated are those indicated at A, B and C which had previously been considered possibilities or probabilities but two of the ailments indicated at D and E, namely, "Acute maxillary sinusitis" and "Neuritis of fifth nerve" have been reduced from certainties to probabilities as indicated at 9 in Figure 3. If the patient has anemia or a low "red" count, the symptom card 6 appertaining thereto is applied on card 5 as in Figure 4 and results in further elimination of ailments including the ailments D and E which had previously been considered as probabilities. Assuming that the sole remaining symptom is an enlarged or bulging drum, the screen or symptom card indicated by that symptom is applied over the card 6. This will leave only one ailment exposed, namely osteophlebitic mastoiditis as indicated at 3. Thus through a system of elimination it becomes possible to determine with a reasonable degree of accuracy any ailment in the group for which the system is designed.

Although only five symptom or screen cards have been illustrated, it is to be understood that one of these cards is to be provided for every symptom which is certain, probable or possible in connection with any one or all of the ailments listed on the key card and each of these screen or symptom cards will have displayed thereon not only the symptom appertaining thereto but also a number whereby the cards can be maintained in regular order and easily located by means of an index of symptoms.

While the present invention is designed primarily for use in the diagnosis of diseases, it is possible, as heretofore stated, to follow the same method of elimination in other fields of investigation or classification, the present improvements being useful in that the symptoms cannot only be used for indicating certainties but also for indicating probabilities and possibilities.

What is claimed is:

A diagnosticum including a key card having separate conclusions displayed thereon, and a plurality of screen cards adapted to be placed over the key card, each screen card being provided for a distinguishing characteristic of one or more of said conclusions and having means thereon for indicating said characteristic, there being a plurality of openings in each card for exposing those conclusions to which the said characteristic applies, the openings being of different sizes to indicate the certainty, probability and possibility, respectively, of the presence of said characteristic in the exposed conclusions.

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