No. 660,972. Patented Oct. 30. 1900.

F. R. RYAN.

DIAGNOSING BELT.

(Application filed May 25, 1900.)

(No Model.)

Fig. 1.

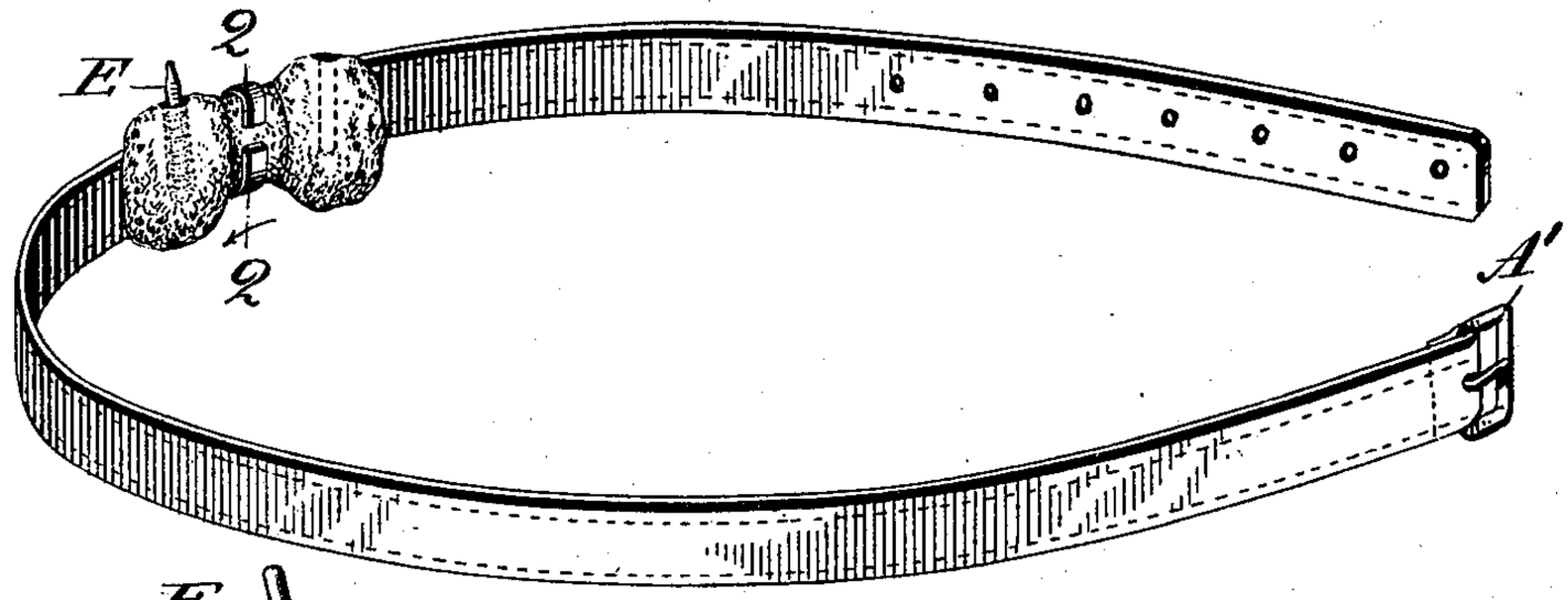

Fig. 3.

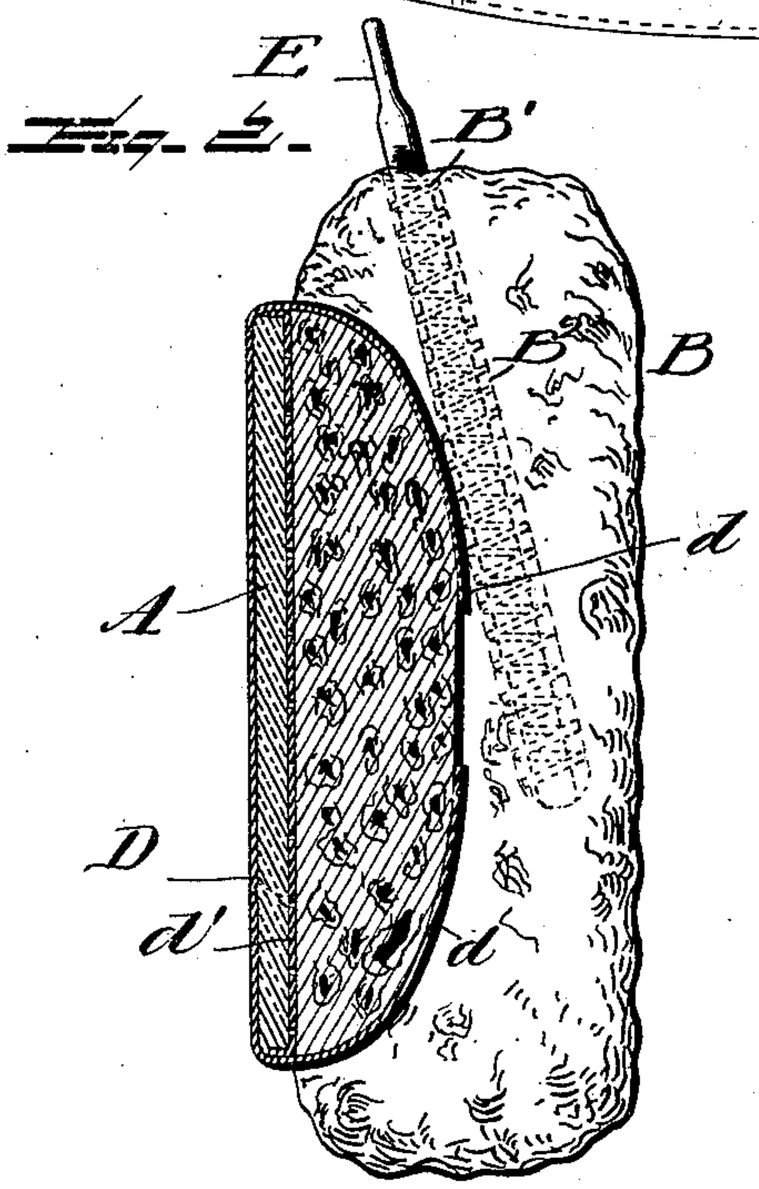

Fig. 4.

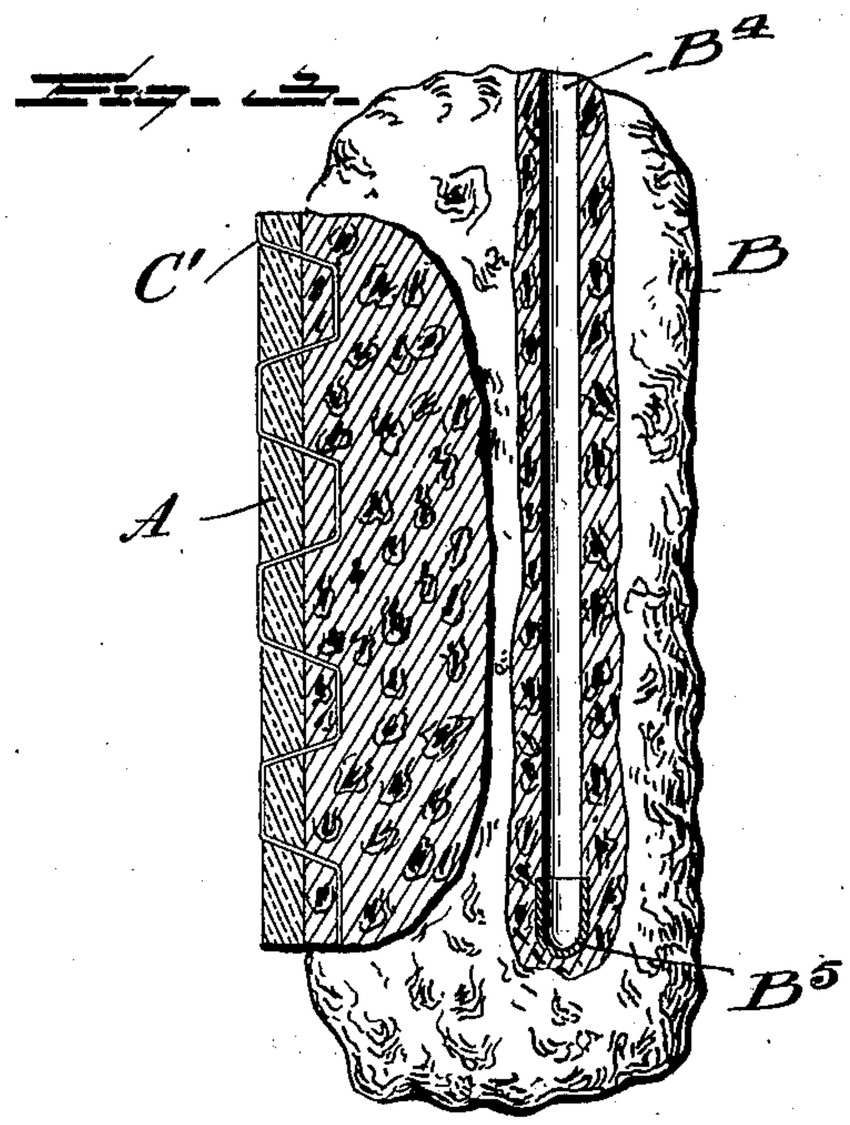

Fig. 2.

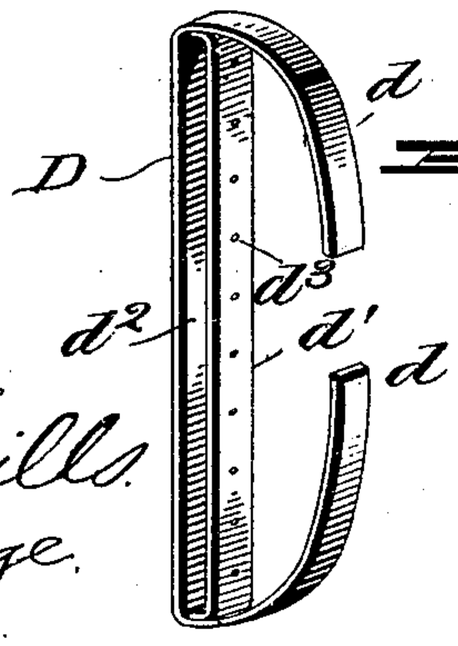

Fig. 5.

WITNESSES:

L. C. Hills.

Alfred T. Gage.

INVENTOR:

Fortunee R. Ryan,

BY E. B. Stocking

Attorney

UNITED STATES PATENT OFFICE.

FORTUNEË R. RYAN, OF MEMPHIS, TENNESSEE.

DIAGNOSING-BELT.

SPECIFICATION forming part of Letters Patent No. 660,972, dated October 30, 1900.

Application filed May 25, 1900. Serial No. 17,960. (No model.)

To all whom it may concern:

Be it known that I, FORTUNEË R. RYAN, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Diagnosing-Belts, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to a diagnosticating-belt to be employed in an investigation of the physical condition of a person or the condition or extent of a disease with which a person is afflicted.

The principal object of the invention is to collect and inspect the secretions of the pores of a patient and also to collect and to inspect and determine the nature of such secretions, whereby the nature and extent of disease with which the person is afflicted may be determined, as well as the proper course of treatment and remedies to be applied.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective of an ordinary belt provided with means for carrying out and accomplishing the purpose of the invention. Fig. 2 is a section on the line 2 2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a vertical section showing a modified manner of securing the absorbent material. Fig. 4 is a perspective of one form of clamp which may be employed, and Fig. 5 is a perspective of a pipette employed with one form of the invention.

Like letters of reference indicate like parts throughout the several figures of the drawings.

A represents a belt of any usual or desired construction and having any desired fastening device A′ in buckle or other form. Upon the belt A is secured a sponge B, or it may be any suitable absorbent material, either by a series of stitches C of any non-corrosive material, such as silver wire or silk threads, or when it is desirable to mount the sponge upon the belt, so as to be readily moved from one position to another on the body of the wearer, by a movable sponge-supporting clasp D. This clasp comprises a spring metallic band, the ends *d* of which serve the function of spring-tongues to grasp the sponge circumferentially and preferably at its mid-length, as clearly indicated in the drawings. A strip *d′* extends from one spring-tongue to the other, forming a loop d^2, which embraces the belt A, so that the loop and sponge can be moved along upon the belt in different directions to locate the sponge at desired points. Perforations D^3 permit of stitching the sponge to the loop, if desired; but this is not generally necessary.

The application of the sponge to the belt is preferably by means acting upon the mid-portion lengthwise of a sponge, whereby the end portions of the sponge assume by its natural resiliency a lobe form. However, this specific application of the securing means is not an essential, as any desired means of securing the sponge to the belt may be employed. Within the sponge there is formed a pocket B′ for the reception of a thermometer E, whereby the temperature of secretions absorbed by the sponge may be taken while the sponge is in use or in contact with the body of the wearer. This pocket B′ may be prevented from collapsing—that is, be held in a distended form—by the employment of a coil of non-corrosive wire B^2 or other equivalent material, although a pocket without such distending means would be in a measure satisfactory. In the same or in another pocket B^4, Fig. 3, there is located a capsule B^5, of vitrified or other desired non-corrosive material, which capsule forms a liquid-holding bottom to the pocket B^4 and also serves to distend the pocket at that point. The object of the capsule B^5 is to receive and retain secretions absorbed by the sponge, which naturally collect in the capsule or are placed therein artificially by a slight pressure upon the sponge. The form of the pocket B^4 and capsule B^5 therein is such as to permit the insertion of a pipette F, Fig. 5, into the pocket, so as to withdraw from the capsule a quantity of the secretion, whereby it may be subsequently tested chemically and otherwise to determine its nature, and thereby to indicate the proper treatment required under the circumstances.

It is apparent that various modifications

may be made in the details of construction, proportion, location, and arrangement of the various parts of the invention without a departure from its spirit, and I therefore do not limit myself in these regards.

Having described my invention, what I claim is—

1. The combination with a supporting-belt, of a sponge provided with a pocket having a spiral pocket-distending means therein; substantially as specified.

2. The combination with a supporting means, of a sponge carried thereby and provided with a pocket, and a non-absorbent receptacle located within the pocket whereby secretions from the sponge about the receptacle may be collected and retained by the receptacle; substantially as specified.

3. The combination with a supporting-belt, of a sponge having two pockets, one of which is provided with means for distention and the other with an open non-absorbent capsule restricted to a lower portion of the pocket to receive and retain liquid in the capsule; substantially as specified.

4. The combination with a belt, of a clasp for a sponge having a belt-receiving loop and a spring sponge-embracing end; substantially as specified.

5. The combination with a belt, of a sponge-carrying device comprising a loop and sponge-embracing ends extended toward each other; substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

FORTUNEË R. RYAN.

Witnesses:
E. B. STOCKING,
ALFRED T. GAGE.