

United States Patent

Barnard

[15] 3,702,606

[45] Nov. 14, 1972

[54] **SPECULUM**

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[22] Filed: **April 22, 1971**

[21] Appl. No.: **136,491**

[30] **Foreign Application Priority Data**

April 21, 1970 Great Britain.....19,124/70

[52] U.S. Cl.....128/17

[51] Int. Cl.....A61b 1/32

[58] Field of Search.....128/17, 18, 19

[56] **References Cited**

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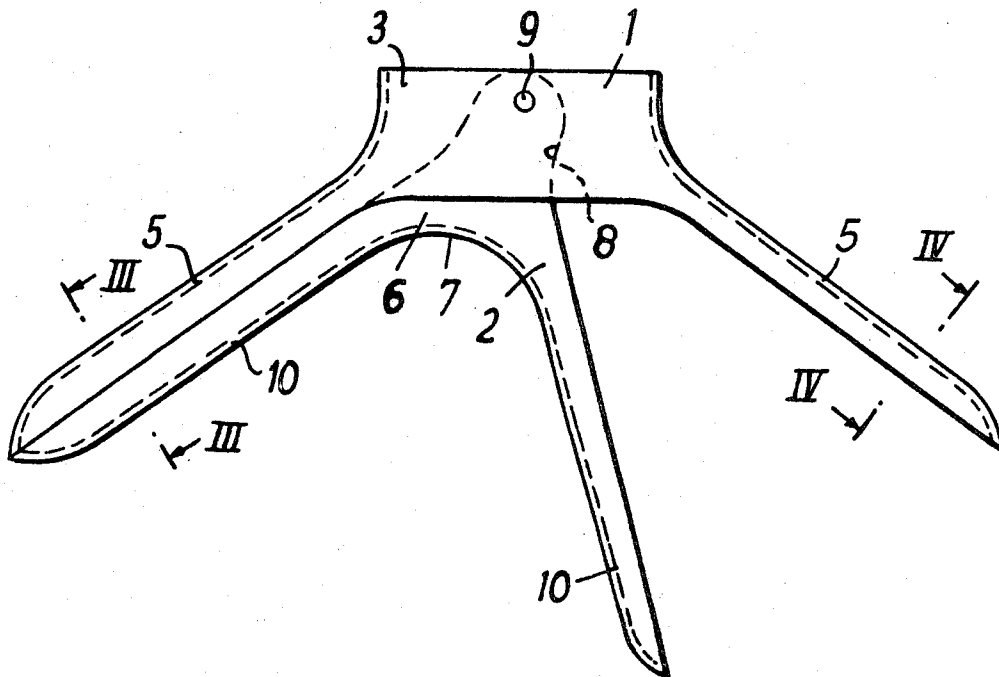
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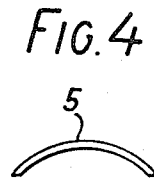
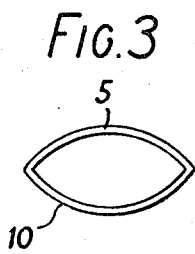
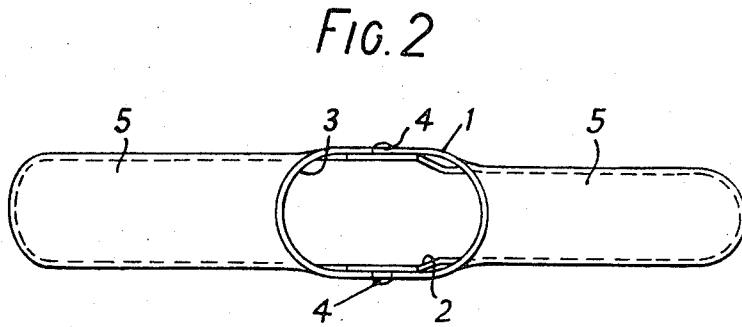
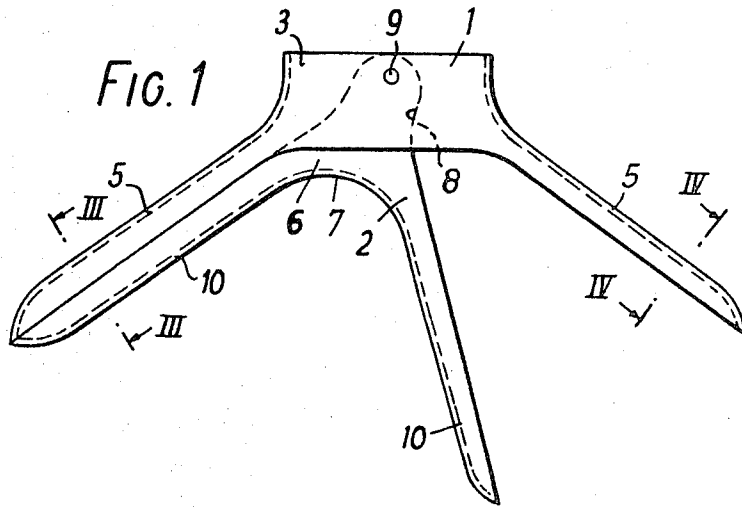
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[57] **ABSTRACT**

A speculum has a first portion consisting of two arms extending from a central part at an angle to one another and a second portion consisting of two arms extending from a central part at an angle which is less than the angle between the arms of the first portion. The central parts of the two portions are pivoted together with the arms of the second portion movable in the arc between the arms of the first portion for selective engagement of an arm of each portion to form a cavity dilating means. The arms for forming the cavity dilating means are so dimensioned that the two cavity dilating means are adapted to dilate different size cavities, the arrangement being such that when an arm of each portion has been brought together the two other arms constitute handles.

3 Claims, 4 Drawing Figures





SPECULUM

The invention relates to a speculum for dilation and inspection of body cavities, and particularly to a vaginal speculum for facilitating cervical smear tests.

The invention provides a first portion consisting of two arms extending from a central part at an angle to one another, a second portion consisting of two arms extending from a central part at an angle which is less than the angle between the arms of the first portion, the central parts of the two portions being pivoted together with the arms of the second portion movable in the arc between the arms of the first portion for selective engagement of an arm of each portion to form a cavity dilating means, the arms for forming the cavity dilating means being so dimensioned that the two cavity dilating means are adapted to dilate different size cavities, the arrangement being such that when an arm of each portion has been brought together the two other arms constitute handles.

In the exemplary embodiment given hereinafter, the differently dimensioned cavity dilating means are provided by arms of different width, the arms defining each cavity means having the same width.

Preferably, each arm, in transverse cross-section, is outwardly convex and inwardly concave.

The speculum may be made of plastics, for example by injection moulding, or it may be made of metal or any other material appropriate to hygienic use.

The speculum may be used as a disposable or non-disposable item.

One embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawing in which:

FIG. 1 is a side elevation of a speculum according to the invention;

FIG. 2 is a plan view of FIG. 1;

FIG. 3 is a section on the line III - III of FIG. 1; and

FIG. 4 is a section on the line IV - IV of FIG. 1.

Referring to the drawing, the speculum comprises a first portion 1 and a second portion 2 each of which may be injection moulded from Perspex (Registered Trade Mark). The portion 1 comprises a substantially elliptical hollow base 3 having a pair of opposed pivot holes 4 in its side walls and a pair of arms 5 extending from the ends thereof at an obtuse angle. As will be seen from FIGS. 3 and 4, each of the arms 5 is outwardly convex and inwardly concave with the two arms differing in transverse dimensions, notably width. The arms also differ in length.

The portion 2 comprises a base 6 including a saddle portion 7 and a pair of side lugs 8 with outwardly extending pivot pins 9 which engage in the pivot holes 4. A pair of arms 10 extend from the saddle portion 7 so as to be coextensive with the arms 5 when aligned therewith and also of the same dimensions and profiles.

The arms 10, however, subtend an acute angle so that one or other of the arms 10 may be moved into engagement with an arm 5 by pivotal movement of the portion 2 on the pivot pins 9.

In use, one set of arms comprising one of each of the arms of the two pairs, is brought together and introduced into the cavity being subjected to examination. The two other arms, which serve as handles, are then manually brought together to part the first two arms and permit inspection to be effected or a smear to be taken.

It is seen that the invention incorporates two sizes of specula in one instrument. Thus, as viewed in FIG. 1, the identical left-hand set of arms 5, 10 define a first size of cavity dilating means, and the identical right-hand set of arms 5, 10 define a second, smaller, size of cavity dilating means. The hollow base 3 allows for inspection through the instrument.

I claim:

1. A speculum comprising a first portion consisting of two arms extending rigidly from a central part at an angle to one another, a second portion consisting of two arms extending rigidly from a central part at an angle which is less than the angle between the arms of the first portion, the central parts of the two portions being pivoted together with the arms of the second portion movable in an arc between the arms of the first portion for selective engagement of adjacent arms of each portion to form two pairs of cavity dilating means, the arms for forming the cavity dilating means being so dimensioned that the two pairs of cavity dilating means are adapted to dilate different size cavities, the arrangement being such that when two adjacent arms have been brought together the two other arms constitute handles.

2. A speculum according to claim 1, wherein the central part of the first portion comprises a hollow tubular member and the central part of the second portion has lugs pivotally connected to the tubular member.

3. A speculum according to claim 1, wherein each arm, in transverse cross-section, is outwardly convex and inwardly concave.

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