

## Who invented and used this curious bistoury?

H Bramwell Cook

Who invented and used this curious bistoury? What was it used for? Why did a lady of high standing consent to be the first person to be subjected to its use? 'I believe I am entitled to say that there are few operations in surgery so perfectly simple in their performance, and so entirely in their results, as division of the ...' (see answer below).

**Figure 1. The bistoury, with its ebony handle, has a spring that keeps it closed**



**Figure 2. A screw (arrowed) limits the extent to which the knife (with its external cutting edge) can be opened**



## Answer

*Simpson's metrotome, also known as Simpson's hysterotome*

James Young Simpson (1811–1870) became Professor of Midwifery at Edinburgh University and was physician to Queen Victoria. Simpson considered the various causes of dysmenorrhoea to be: ovarian; neuralgic; congestive and inflammatory; gouty and rheumatic; organic; membranous; and obstructive.<sup>1</sup> He believed that 'the sufferings in obstructive dysmenorrhoea to arise from the uterus being driven into contractions, like those of abortion, to expel its own retained menstrual secretions.'<sup>2</sup>

For a long time Simpson used intrauterine bougies as the chief or only agents for the cure of mechanical dysmenorrhoea, passing in one of a larger size every three or four days. However, the length of time required to obtain a 'cure', two months or more, was a disadvantage. Then, one day, a lady of high rank came to Simpson, not prepared to commit herself to such a lengthy period.<sup>1</sup>

But all of this you can effect at once, rapidly and certainly, by making incisions of sufficient depth into both sides of the cervix uteri. To make such incisions, you require to introduce this instrument or metrotome as far as the os internum, where the incision begins—at first quite shallow, and then make it deeper as the instrument is withdrawn, till at the os externum the cervix is cut across in all its thickness. An incision of this nature into both sides of the cervix makes it canal wide and pyramidal in form, so as easily to admit the finger; and in healing leaves the orifice more like that of a uterus from which an impregnate ovum has been expelled.

The first patient on whom I performed the operation, in 1843, was a lady of high rank, who had been married for several years, without having had a family, and who used to suffer at each menstrual period from most excruciating pains. She had heard about the dilatation, and had got up the whole subject—anatomy and all—and came to Edinburgh with a view of obtaining relief by that means. I explained that the process would occupy a considerable period—two months or more, when she at once she said that the time was too long, and that unless she could be cured by some speedier method she would not submit to be treated at all.

I then told I had often thought of dividing the cervix in such cases, and that I had never yet put it in practice, I believed it would be both a speedy and a most effectual means of procuring relief. She readily comprehended what was meant, and seeing the feasibility of the proposal, at once said that I must perform the operation on her as the first patient. I made the incisions as I have told you, but with a very imperfect instrument, and the patient was perfectly well, and about four months afterwards she had become pregnant.

I was afraid that the cicatrix might prevent some obstruction to parturition, and so was Sir Charles Laycock, who was to attend her in confinement in London. I was waiting very anxiously to know what effect the operation might have had on the labour, when a letter from Sir Charles relieved me from my anxieties, for he told me that the labour had to only gone favourably, but had even been remarkably easy for a first confinement. Since that period I have performed the operation in a very great number of cases. Last week, for

example, I had recourse to it in not fewer than five cases. In fact it has come with me to be the usual mode of treatment for all cases of dysmenorrhoea depending on contraction of the os or cervix uteri.

The instrument which I use is a sort of bistoury... The canal may contract to some degree afterwards when the wounds heal, and to prevent this I have sometimes made use of sponge-tents or intra-uterine bougies. But the introduction of these instruments in such cases causes pain and irritation of the raw lips of the wound; and you will find that by opening up the wound every two or three days for a time with the finger, you can effectually prevent all union by the first intention, and in this way provide against the chances of a recurrence of the stricture; or you may touch the corners of the wound with a piece of nitrate of silver with a like good result.

Hemorrhage [sic] may sometimes follow division of the cervix... but I have never seen it occur to any very alarming extent. Inflammation may sometimes be set up and spread to the surrounding loose cellular tissue... Attended with such rare and slight risks, the operation is very safe one, and there is only this further to be observed in connection with it, that unless all the fibres are fully divided, there is sometimes a chance of the wound healing too rapidly, and the stricture being reproduced.

But altogether, I believe I am entitled to say that there are few operations in surgery so perfectly simple in their performance, and so entirely in their results, as division of the cervix uteri in cases of obstructive dysmenorrhoea and sterility.

Simpson's metrotome, or hysterotome, made by Mr Young, cutler, is shown on page 118<sup>1</sup> and on page 266.<sup>2</sup>

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