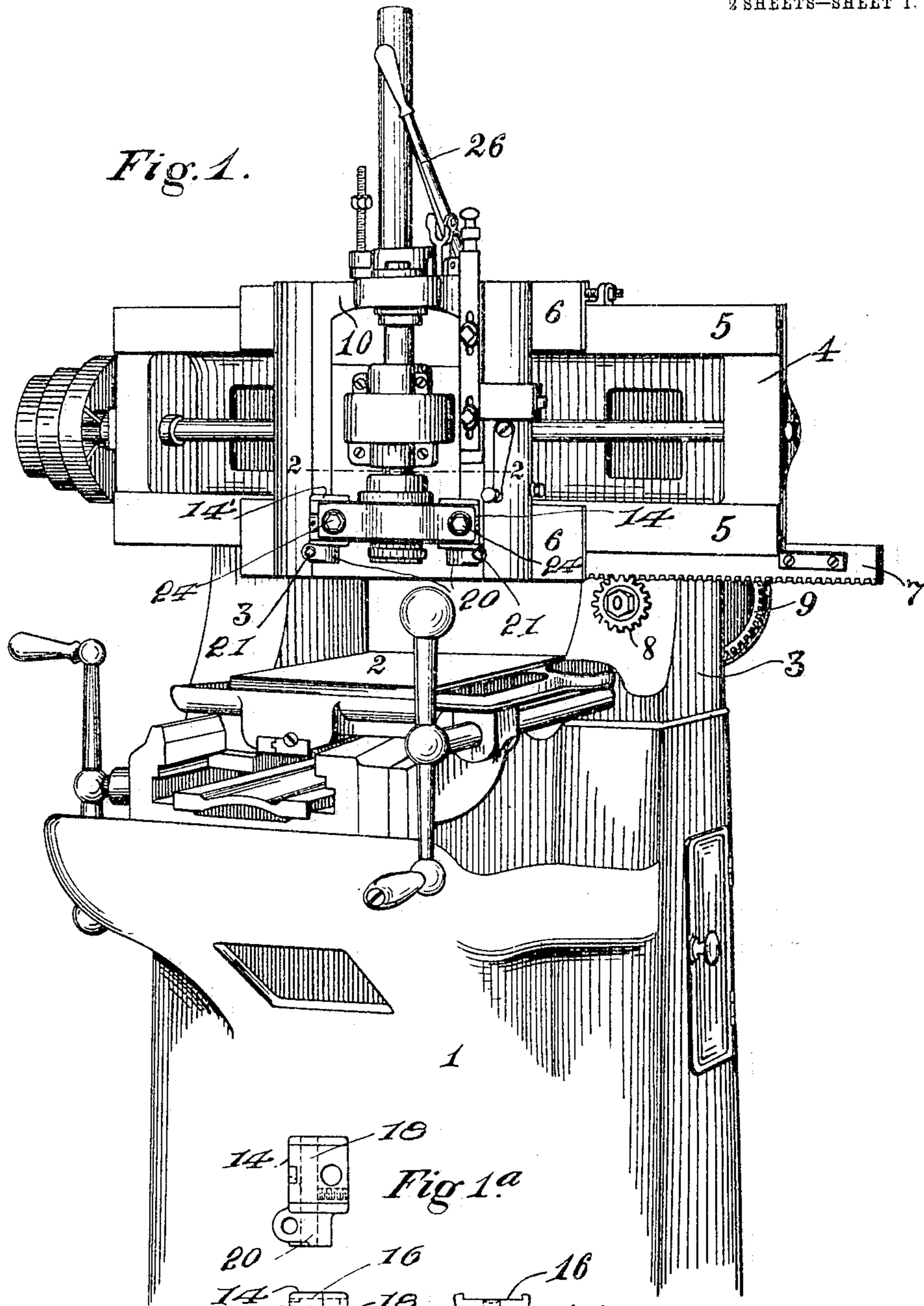


B. M. W. HANSON.
PROFILING MACHINE.
APPLICATION FILED MAR. 22, 1904.

2 SHEETS—SHEET 1.



Witnesses:

J. E. Anderson.

Frances E. Blodgett.

Inventor:

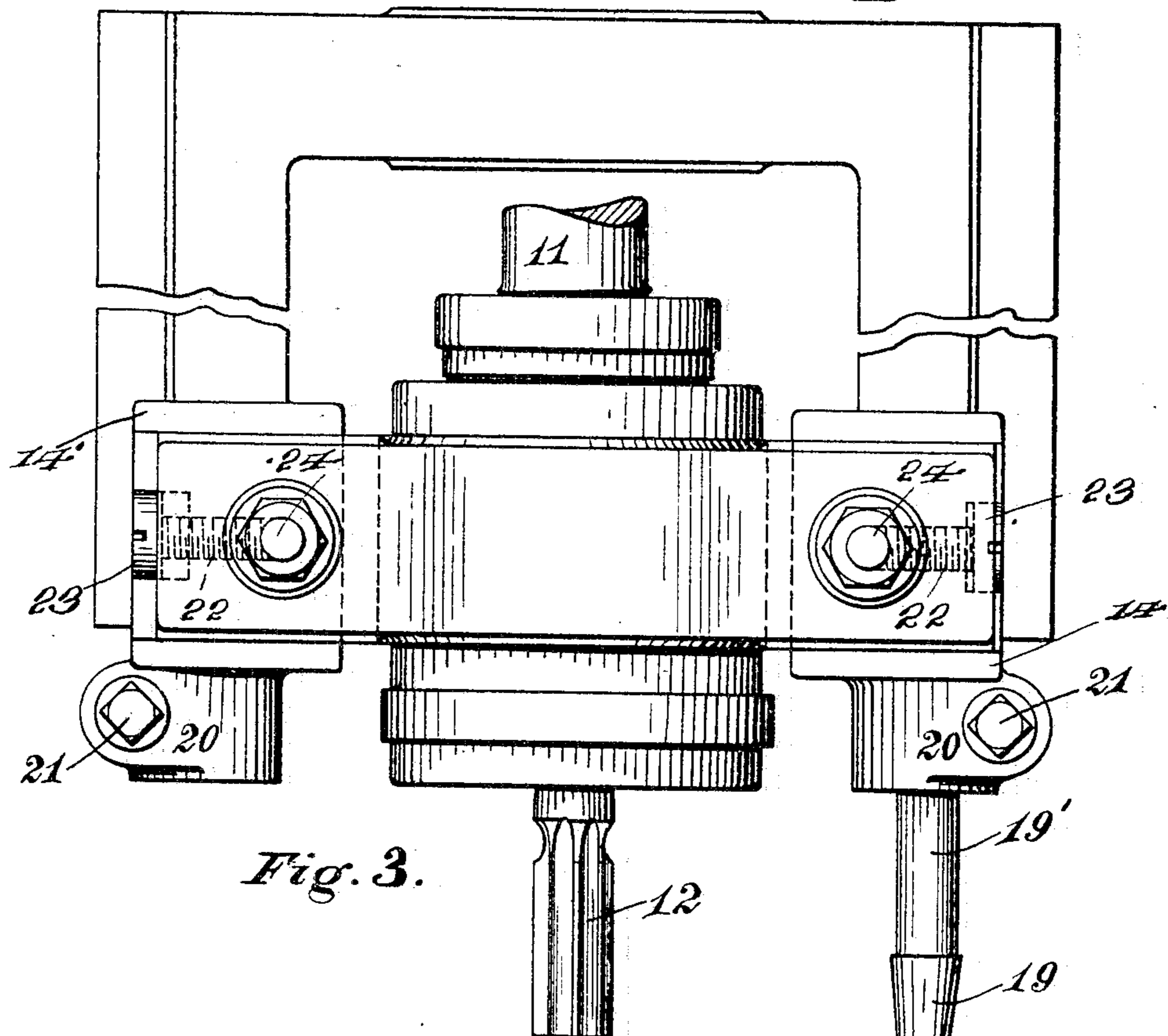
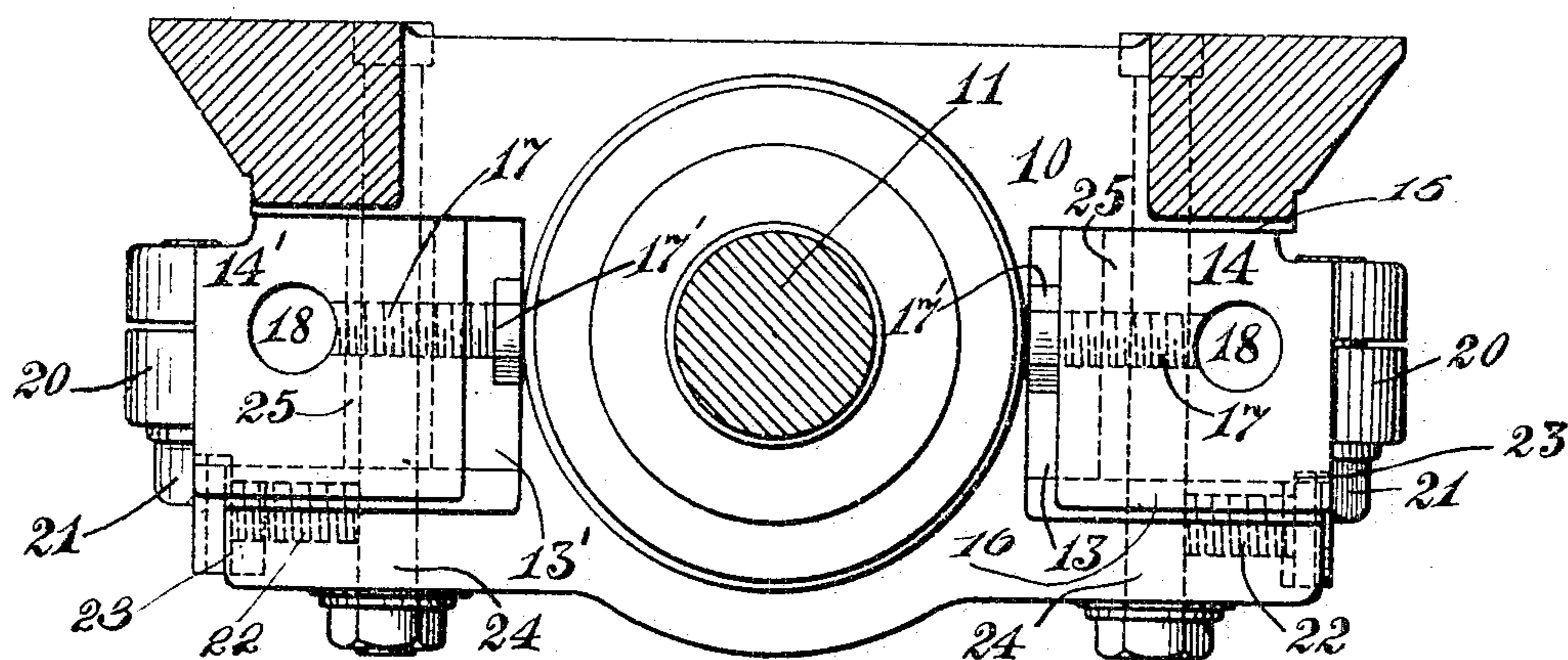
B. M. W. Hanson,

By his Attorney

M. H. Blodgett

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2 SHEETS—SHEET 2.

Fig. 2.*Fig. 3.*

Witnesses:

F. E. Anderson.
 Frances E. Blaggett.

Inventor:

B. M. W. Hanson,
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UNITED STATES PATENT OFFICE.

BENGT M. W. HANSON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO
PRATT & WHITNEY COMPANY, OF HARTFORD, CONNECTICUT, A
CORPORATION OF NEW JERSEY.

PROFILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 782,242, dated February 14, 1905.

Application filed March 22, 1904. Serial No. 199,511.

To all whom it may concern:

Be it known that I, BENGT M. W. HANSON, a citizen of Sweden, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Profiling-Machines, of which the following is a specification.

My invention relates to profiling-machines, and has for its object the provision of improvements whereby the carrier for the former-pin may be readily adjusted to locate said pin properly with relation to the form upon the table.

Heretofore in the class of machines to which my invention appertains it has been the usual practice to clamp the form upon the table in fixed relation to the former-pin, and frequently it may happen that the form is not properly located with reference to the pin, and consequently has to be taken up and again placed in position. This takes time and, furthermore, does not always tend to the production of the best results in causing the profiling-tool accurately to operate upon the work in accordance with the outline of the form.

A further object of my invention is the provision in the spindle-head of a profiling-machine of means whereby the former-pin or spindle may be adjusted with relation to the form upon the table.

In the accompanying drawings, Figure 1 is a perspective view of a profiling-machine containing my improvements, and Fig. 1^a shows detail views of one of the former-pin blocks. Fig. 2 is a horizontal section of the head taken on line 2-2 of Fig. 1. Fig. 3 is a detail view of the head and its attachments, parts being broken away.

Like characters designate similar parts throughout the several views.

Referring to the drawings, the frame or column of a profiling-machine is designated by the numeral 1, and on this column is supported on suitable ways the table 2, to which the usual work and the form or pattern are to be secured.

Rising from the column or frame 1 are standards 3-3, united by a transverse piece 4, either

integral therewith or detachably secured thereto, as desired, said piece having ways 5-5, upon which the slide 6 is fitted. For actuating this slide the usual rack 7, driven by a pinion 8, actuated by any suitable driving mechanism 9, may be employed.

Mounted in ways of the slide 6 is a head 10, in bearings of which is journaled the spindle 11, carrying the usual profiling-tool 12. (See Fig. 3.) Adjacent to its lower end the head 10 is chambered at each side, as at 13-13', for the reception of blocks 14-14' for purposes hereinafter stated. As shown in Fig. 1^a, each of these blocks is formed with a plain side 15 and a grooved side 16, the latter fitting over the base of the chamber to prevent lateral movement of the block. Each block is tapped to receive a screw 17, having a head 17', shaped to receive a wrench, and each is perforated at 18 to receive the stem 19' of the former-pin 19, said stem being clamped in position in a depending split portion 20 of the block by a bolt 21. Threaded into each side of the head 10 is a screw 22, having a wide head bearing against a shoulder 23 of the block. Bolts 24 pass through transverse apertures 25 in the blocks, said apertures being of greater diameter than the bolts, and these bolts clamp the blocks 14-14' upon the head 10.

It will be seen that a former-pin holder or clamp 20 is provided on each side of the head 10 and that the centers of the former-pin holes 18 are located equidistant from the center of the spindle 11 and in the same plane with said spindle. In virtue of this construction, when it is desired to produce a profiling former-plate from a model piece of work the latter may be fastened to the table in the place where the work regularly rests, and the blank former-plate will be secured to said table in the place in which the finished former is subsequently to be used. In other words, the former-pin may in this machine be shifted to either side of the spindle, in accordance with the character of work to be accomplished. Should the former-pin not be in proper engagement with the former, it may be made to conform thereto by actuating the screws 17 and 22, and thus

adjusting the former-pin block 14 or 14' in its seat in the spindle-head, as above stated. Any desired means may be employed for reciprocating the spindle 11 and for rotating the same. The usual hand-lever 26 is, however, shown for depressing the spindle, which may then be locked in place in the ordinary way.

Means different from those shown may be employed for adjusting the former-pin block, the invention not being limited to the devices shown. Furthermore, the former-pin may be clamped to the former-pin block in any desired way without departure from the invention.

While a simple spindle-machine is shown, the invention is not limited thereto, for it is equally applicable to multiple-spindle machines.

Having thus described my invention, what I claim is—

1. In a profiling-machine, the combination, with a chambered head, of a former-pin block mounted in the chamber of the head; means for adjusting said block; and a spindle carrying the tool and journaled in the head.

2. The combination, with a head having a pair of chambers, of a spindle carrying the profiling-tool; and adjustable former-pin holders mounted in the chambers of the head, and one located on each side of the spindle.

3. The combination, with a chambered head, of a spindle journaled in said head; a former-pin block mounted in the chamber of the head; and means for adjusting said block.

4. The combination, with a chambered head, of a spindle journaled in said head; a former-pin block located in the chamber of the head, and screws for adjusting said block, the head of one of the screws bearing against a wall of the chamber.

5. The combination, with a head having a chamber, of a spindle journaled in the head; a former-pin block located in said chamber; a screw tapped into the block and having a head bearing against the wall of the chamber; and a screw tapped into the head and having a flange bearing against said block.

6. The combination, with a head having a pair of chambers, of a rotary spindle journaled in said head between the chambers; former-pin blocks mounted in the chambers; and means for adjusting each of said blocks.

7. The combination, with a chambered head, of a former-pin block having an aperture; a bolt passing through and of less diameter than said aperture; a spindle; means for adjusting the block toward and from the spindle; a profiling-tool carried by the spindle; and a former-pin secured to the block.

8. The combination, with a chambered head, of a spindle journaled in said head; and a former-pin block located in the chamber and having a grooved side fitting upon a wall of the chamber, a plain side, an aperture for the reception of the former-pin, and a split clamp for securing said former-pin.

9. The combination, with a reciprocatory table adapted to receive the work and form, of a head; a spindle journaled in said head and carrying a tool; a block mounted in a chamber of the head; means for adjusting said block toward and from the spindle; a former-pin; and means for clamping said pin to the block.

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

BENGT M. W. HANSON.

Witnesses:

H. E. BAILEY,
E. C. BENEDICT.