

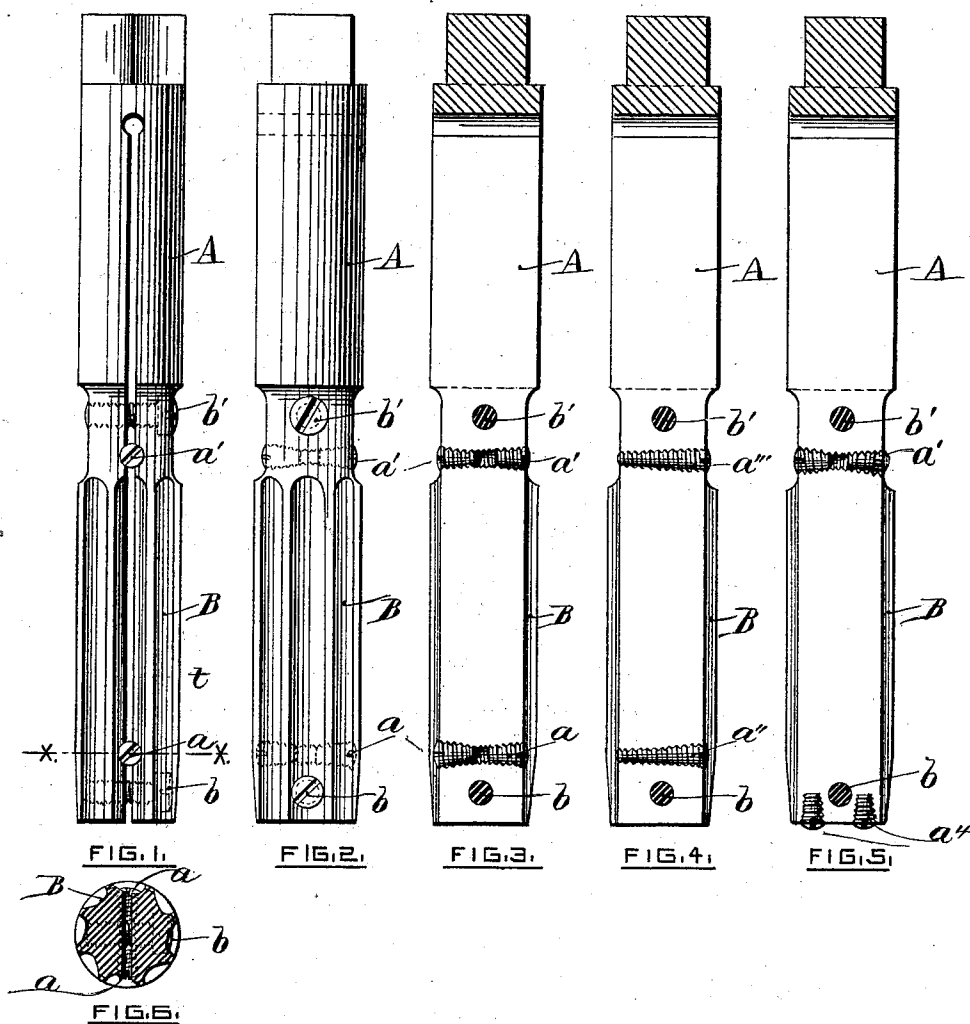
(No Model.)

C. R. C. FRENCH.

REAMER.

No. 280,368.

Patented July 3, 1883.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CICERO R. C. FRENCH, OF PROVIDENCE, RHODE ISLAND.

REAMER.

SPECIFICATION forming part of Letters Patent No. 280,368, dated July 3, 1883.

Application filed January 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, CICERO R. C. FRENCH, of the city and county of Providence, in the State of Rhode Island, have made certain new and useful Improvements in Reamers, of which the following is a full and correct description, reference being had to the accompanying drawings, forming a part of this specification.

10 This invention consists in making a reamer with a slot extending through the cutting part and putting "stay-screws" through the two parts divided by the slot to hold them together, and in putting taper screws in the slot to separate the two parts, so that the size of the reamer may be increased or diminished for the purpose of adjusting it to an exact size.

15 In the drawings, Figure 1 is a side view of the reamer in the direction of the slot. Fig. 2 shows the reamer turned one-quarter way round. Fig. 3 is a longitudinal section taken through the plane of the slot. Fig. 4 shows the same with long taper screws. Fig. 5 is the same with a different arrangement of the screws. Fig. 6 shows a cross-section taken through the line *x x*, Fig. 1.

20 A is the upper part or body of the reamer. B is the cutting part, which is fluted in any of the usual ways, so as to form cutting-edges. A slot, *t*, is made through the center of the reamer, that extends through the cutting part B and well up toward the upper end of the reamer. Two stay-screws, *b b'*, are put through the two parts of the reamer transversely to the slot *t*, one near each end of the fluted portion, to draw the two halves together. These screws *b b'* are fitted to turn freely without threads in that part of the reamer next to the screw-head and with screw-threads in the other part of the reamer. Short taper screws *a a* and *a' a'* are fitted with screw-threads into taper holes, that intersect the slot *t* on both sides of the reamer and near the stay-screws *b b'*, so that

when they are turned in they will separate the two halves of the reamer and enlarge its size. 45

In Fig. 4 are shown two long taper screws, *a' a''*, each one taking the place of two of the short screws *a a'* in Fig. 3. These longer screws are fitted into their taper holes with screw-threads their whole length, so that they shall have a bearing both sides of the center or entirely through the reamer. 50

Fig. 5 shows the two short screws *a' a'* inserted in the end of the reamer, one each side of the stay-screw, instead of being put in the sides, as above described, but producing the same effect in the same way—that is, expanding the reamer by separating the two parts when screwed in. 55

The operation is as follows: By loosening the stay-screws *b b'* and screwing in the taper screws *a a'* or *a' a''* or *a' a'* the size of the reamer will be increased by the separation of the two halves, and, vice versa, by loosening the taper screws and turning in the stay-screws *b b'* the size of the reamer will be decreased by the drawing together of the halves; and by operating the screws at either end separately the reamer may be made to taper in either direction or its sides made perfectly parallel. 60 65 70

Having thus described my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

As a new article of manufacture, a reamer constructed substantially as herein shown and described—that is, with a slot extending lengthwise and centrally through the cutting part, and having taper screws inserted in the slot to separate the parts, and transverse stay-screws to hold them together—substantially as set forth. 75 80

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Witnesses:

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