

(No Model.)

E. N. SOULIS.

OIL STONE.

No. 278,190.

Patented May 22, 1883.

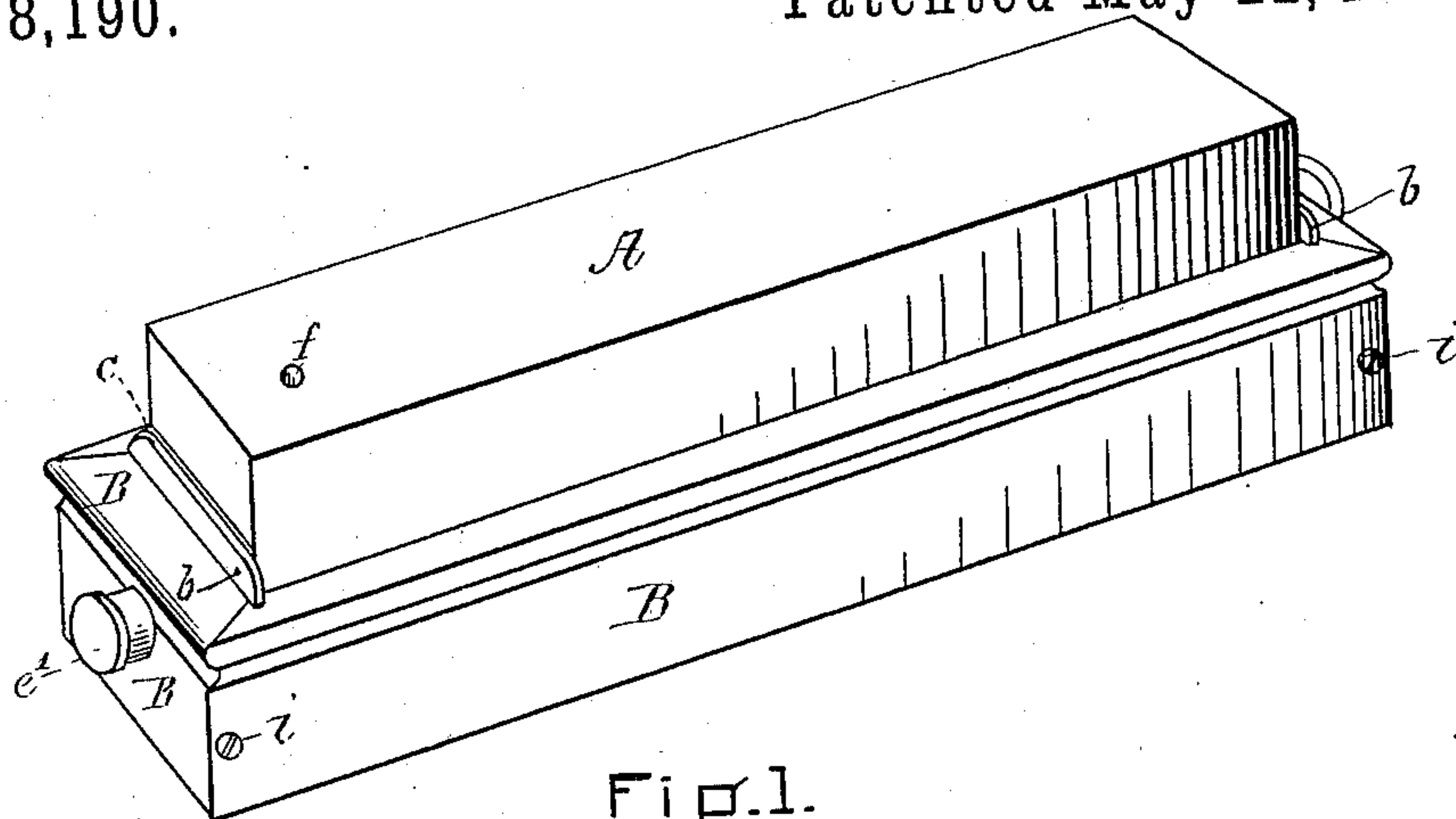


Fig. 1.

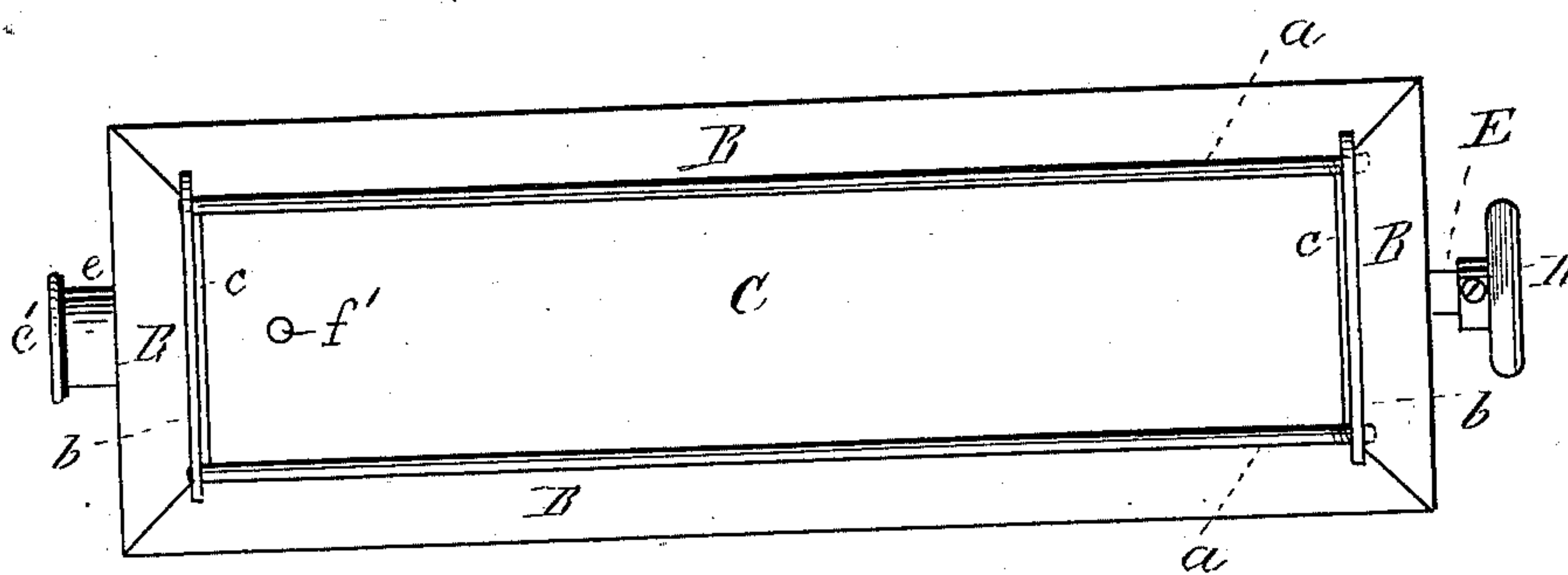


Fig. 2.

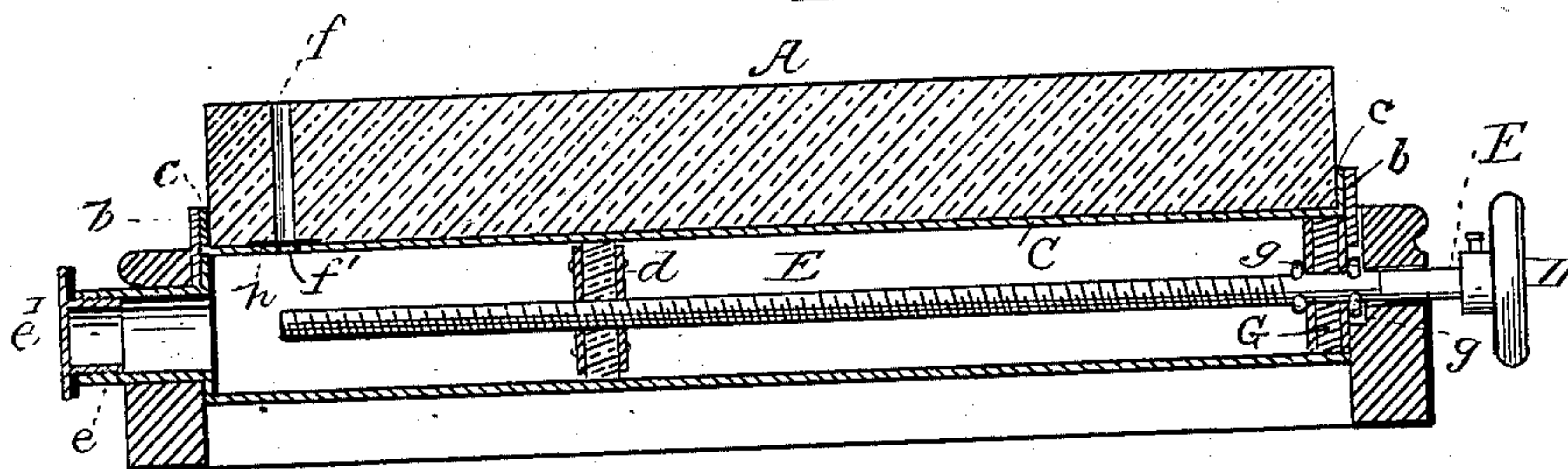


Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

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OIL-STONE.

SPECIFICATION forming part of Letters Patent No. 278,190, dated May 22, 1883.

Application filed March 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD N. SOULIS, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented Improvements in Oil-Stones, of which the following is a specification.

My invention relates to oil-stones used for sharpening edged tools; and it consists of an oil-reservoir connected with the oil-stone by an orifice leading from the reservoir to the surface of the oil-stone used, and a frame for holding and securing said oil-stone and reservoir, and means of supplying the oil-stone with oil for the surface of the stone when needed; and the object of my invention is to furnish an oil-stone with a reservoir containing oil, so that the surface of the stone may be readily supplied by turning a rod which runs through the central part of said reservoir, having thereon packing, the turning of which rod forces the oil from the reservoir through an orifice leading from the reservoir through an orifice in the oil-stone to the surface of the same.

That others skilled in the art may understand the nature and use of my invention, reference is hereby made to the accompanying drawings, and to the letters of reference thereon, which are made a part of this specification, in which—

Figure 1 is a perspective of the machine. Fig. 2 is a plan, the oil-stone being removed. Fig. 3 is a longitudinal vertical section of Fig. 1.

The letters A represent the oil-stone; B, the frame; C, the reservoir; D, the hand-wheel upon the end of a rod; E, the said rod; *a*, rods of a clamp; *b*, collars or cross-pieces of said clamp; *c*, flanges on the top of the reservoir; *d*, packing on the rod E; *e*, a nozzle, and *e'* cap of the nozzle; *f*, orifice leading from the reservoir to the top part of the oil-stone; *g*, washers on rod E; *h*, a perforated rubber wafer to prevent flow of the oil; *i*, screws joining frame-pieces.

Fig. 1 shows the oil-stone A set in the top of the frame B, which consists of four pieces of wood or any suitable material, united at their ends by screws *i*, as shown, or by any suitable fastening. The frame covers the sides

of the reservoir, the oil-stone the top of the same, and the bottom may be left uncovered or covered, as found convenient.

The reservoir C is rectangular in form, corresponding in length to the oil-stone. It is made of metal or any suitable material. On the top side of and at each end of the reservoir are seen flanges *c*, which are the ends of the top side of the reservoir turned up. These flanges hold the oil-stone, and that the pressure may be sufficient I have made a clamp, (see Figs. 2 and 3,) consisting of the rods *a* and the cross-pieces *b*, surrounding the top part of the reservoir, the cross-pieces *b* pressing against the flanges *c* at each end, and one end of each rod is a screw passing into the cross-pieces as into a nut. The rods being revolved in the cross-pieces, the clamp may be tightened or loosened at pleasure.

Through one end of the frame B (see Fig. 3) and into the reservoir C passes the rod E, which has a screw-thread its entire length and which passes through the packing *d* as through a nut, and said packing closely fits the reservoir. At the other end of the reservoir is a nozzle, *e*, having a cap, *e'*, and near the nozzle end of the reservoir, and at its top part, is seen the orifice *f'*, which is a vent in the top of the reservoir, leading up through the oil-stone. The end of the reservoir between the washers *g*, on the outside and inside of the reservoir, is made so as to be removed, when necessary to insert and remove the packing, and a screw from the outside of the reservoir (not shown in the drawings) holds said end in place. The end or plug G of the reservoir is made of any suitable material and closely fits into the reservoir, and is surrounded by packing, if necessary, to prevent leaking. The rod E has slight grooves made around it at the points *g g*, and before the rod is inserted in the reservoir I put the rod through the hole in the plug G, as shown in Fig. 3, and then place a wire washer, *g*, around the rod in the inner groove, and then another wire washer around the rod in the groove on the outside of the plug. The rod is then easily revolved, but held securely in its place; but that there may be no slipping I have inserted a screw through the side of the reservoir, which goes into the plug G; but I

am not confined to this exact method, the object being to give steadiness to the rod and prevent leakage.

To operate the machine, suppose the packing is on the rod F at its end opposite the nozzle. Fill the reservoir with oil at the nozzle. Turn the wheel D forward. The packing will be forced toward the nozzle end of the reservoir, and this will force the oil up through the vent f' and orifice f upon the upper surface of the oil-stone. In this way the packing may be forced the length of the reservoir, and by turning the wheel in the opposite direction the packing will be forced to the other end of the reservoir again. I have placed a thin layer of rubber or leather, h , around the orifice f , between the reservoir and the oil-stone, to prevent leaking or spread of the oil.

By the use of my invention I do away with the oil-can, which must be kept at hand all the time in the old way, and I have a neat and convenient stand or frame for the oil-stone to rest upon when in use, and I save, also, much oil in the use of the same. To cut off the flow of oil entirely, if necessary, I may have a slide or cut-off inserted between the reservoir and oil-stone.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the oil-stone A, having an orifice, f , the reservoir C, provided with an orifice, f' , and flanges c , and a clamp composed of the rods a and the cross-pieces b , substantially in the manner and for the purpose shown and described. 30

2. The combination of the frame B, the reservoir C, having orifice f' , the hand-wheel D, the rod E, having washers g thereon, and the packing d , substantially in the manner and for the purpose shown and described. 35

3. The combination of the oil-stone A, having an orifice, f , the frame B, the reservoir C, having flanges c and a vent, f' , continuous through the oil-stone A, the wheel D, the rod E, having washers g , the packing d , the nozzle e , and cap e' , and a clamp consisting of the rods a and the cross-pieces b , substantially as shown and described. 40 45

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Witnesses:

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