

IRA S. HAMILTON.

Improvement in Pipe Wrenches.

No. 120,641.

Patented Nov. 7, 1871.

Fig. 1

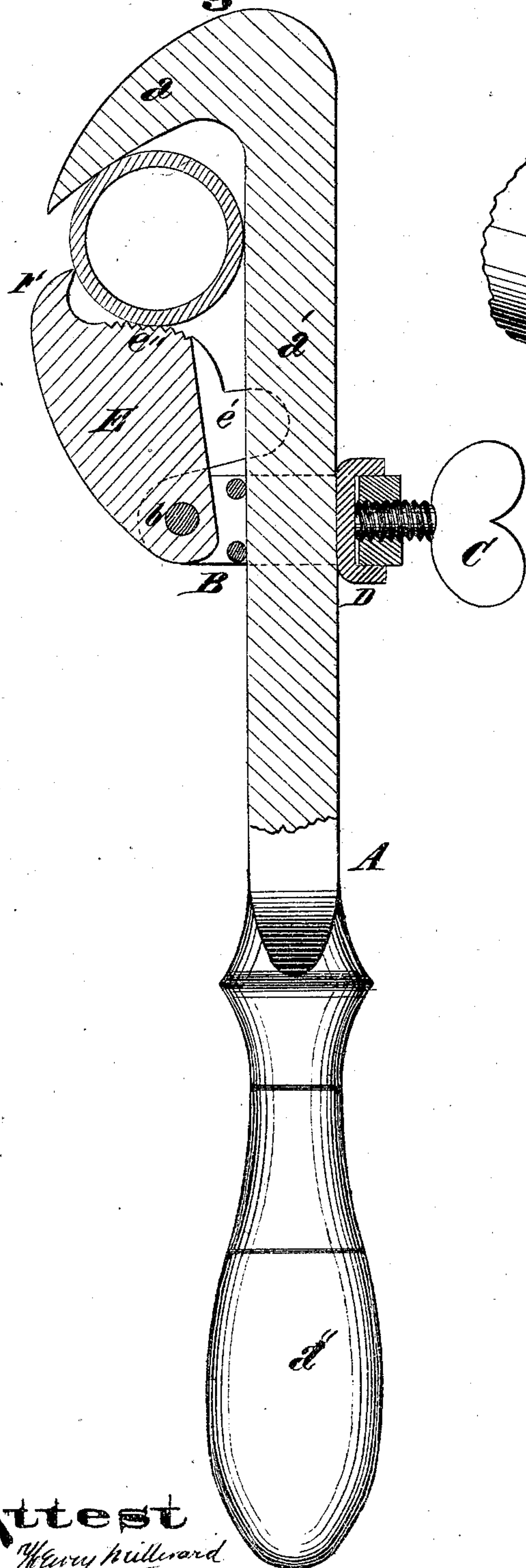
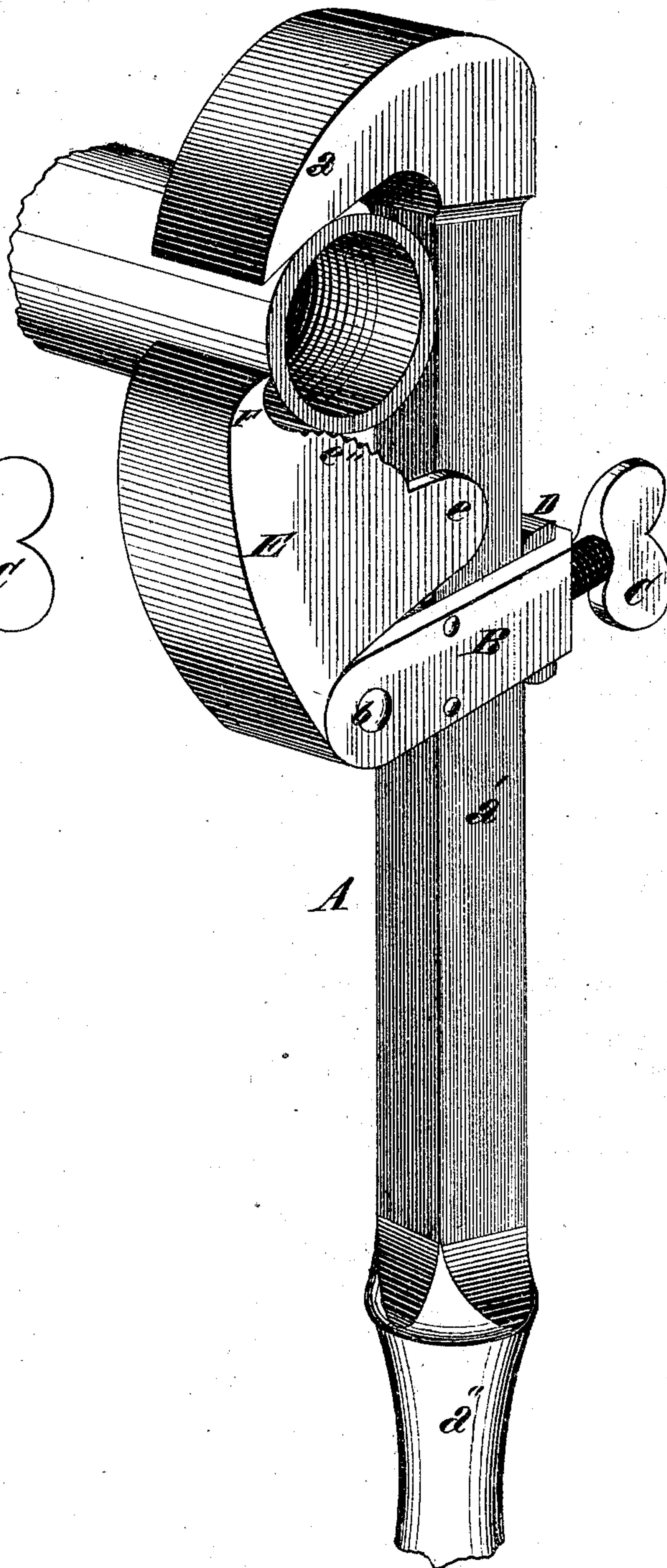


Fig. 2



Attest

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UNITED STATES PATENT OFFICE.

IRA S. HAMILTON, OF HAMILTON, OHIO.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. 120,641, dated November 7, 1871.

To all whom it may concern:

Be it known that I, IRA S. HAMILTON, of Hamilton, Butler county, State of Ohio, have invented a certain new and useful Improvement in Pipe-Wrenches, of which the following is a specification:

My invention consists of a wrench composed of a hook-ended body, a sliding adjustable block fitted to the body, and a peculiarly-shaped cam and claw combined, by which a grip of such a character is maintained upon the pipe to be rotated or otherwise operated upon that there is not only no liability of slip, but the risk of collapse is also avoided.

Figure 1 is an elevation of my wrench partly in section. Fig. 2 is a perspective view of the same.

The body A of the wrench is formed with a hooked end or head, *a*, a parallel-sided square shank, *a'*, and a handle, *a''*. These may be formed in one piece or separately, as may be preferred in manufacture. To the shank *a'* a sliding block, B, is fitted, which can be secured in any position to which it may have been adjusted by means of set-screw C. A gib, D, may be inserted between the screw C and shank *a'*, if desired. A block, E, is pivoted to block B in the manner shown, the former being constructed with jaws *e e'* to loosely embrace the shank *a'* and serrated surface *e''* to fit against the pipe.

The serrated surface is eccentric to the point *b*, on which block E is pivoted for the purpose of enabling the grip upon the pipe to be increased automatically in the operation of the wrench. In order to prevent the grip from being increased to so great an extent in the operation of the wrench as to occasion a collapse of the pipe, I form upon the outer end of block E a claw, F, which, when the grip upon the pipe is sufficient, (in the direction of the greatest strain,) rests against the pipe, acts to grip the pipe itself, and serves to prevent the serrated cam from pressing the pipe too severely. The claw F prevents collapse by supplying additional point of contact and limiting the motion of the cam. The degree of pressure necessary for the cam to exert before the claw F is allowed to touch the pipe can be adjusted by the setting of the block B in the required position.

I claim—

In combination with the body and claw A *a* and sliding adjustable block B, the cam E, constructed with a claw, F, to arrest the action of the cam at the desired point, substantially as set forth.

In testimony of which invention I hereunto set my hand.

Witnesses:

IRA S. HAMILTON.

FRANK MILLWARD,
ELITHA F. LAYMAN.

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