

(No Model.)

W. H. DECHANT.
PIPE WRENCH.

No. 481,257.

Patented Aug. 23, 1892.

Fig. 1.

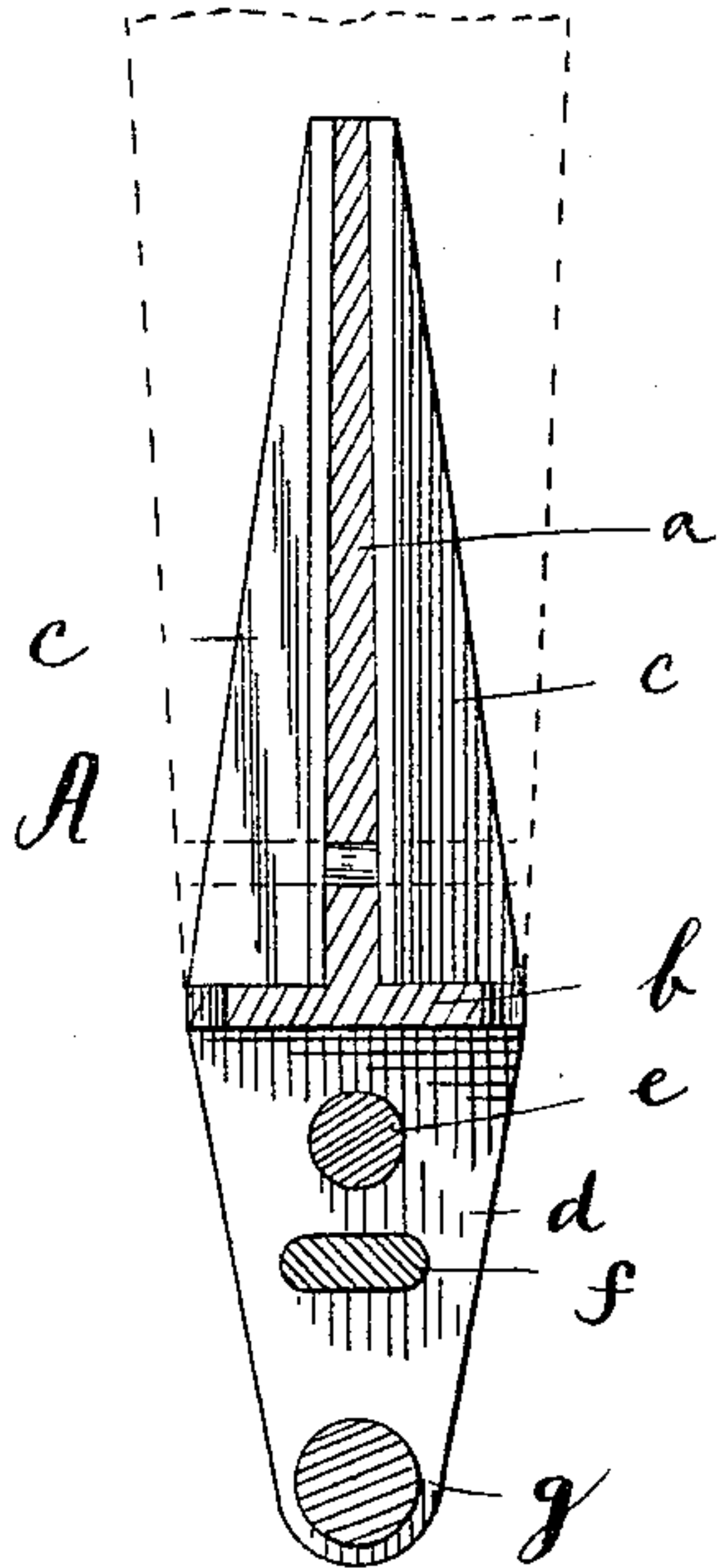


Fig. 2.

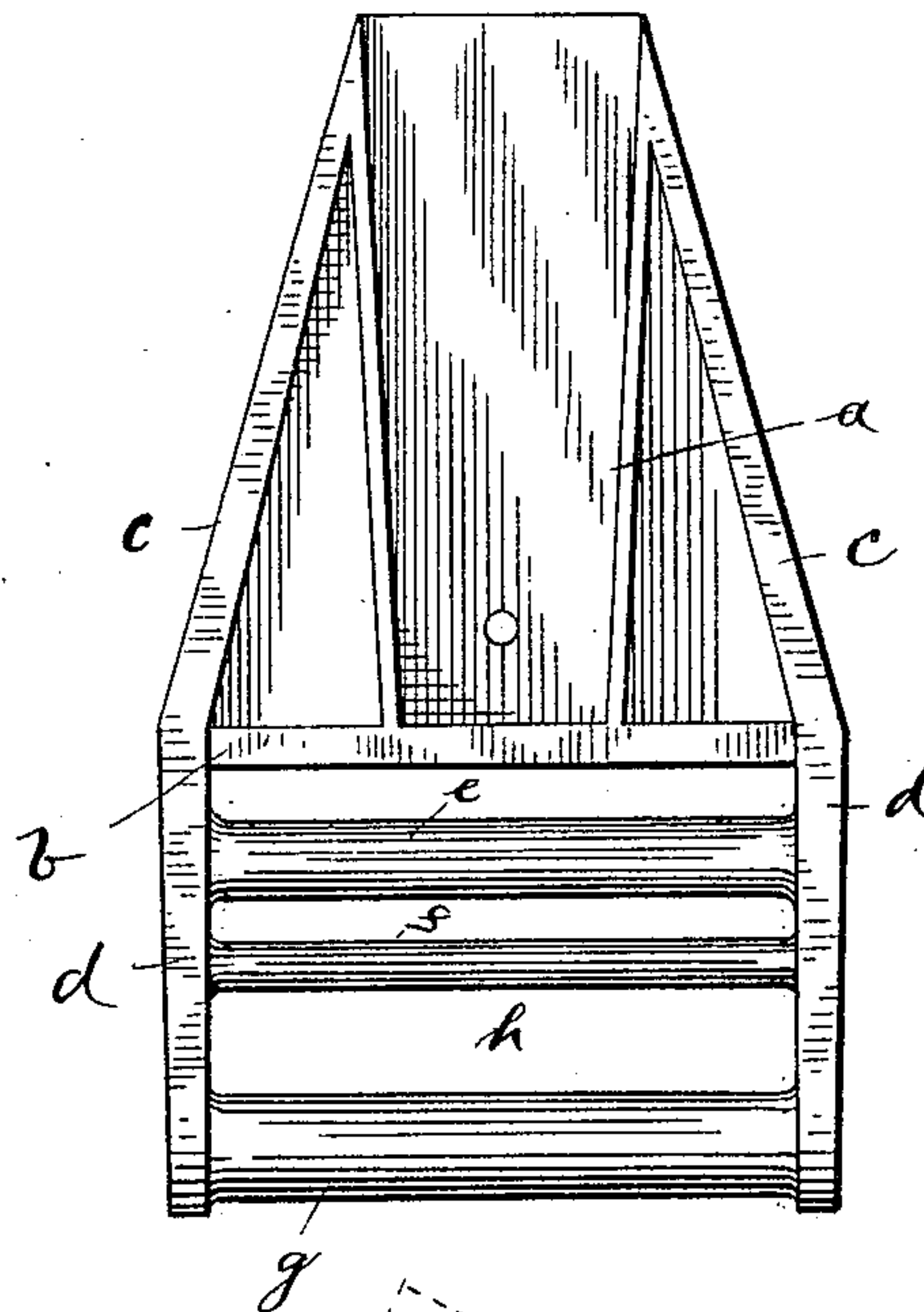
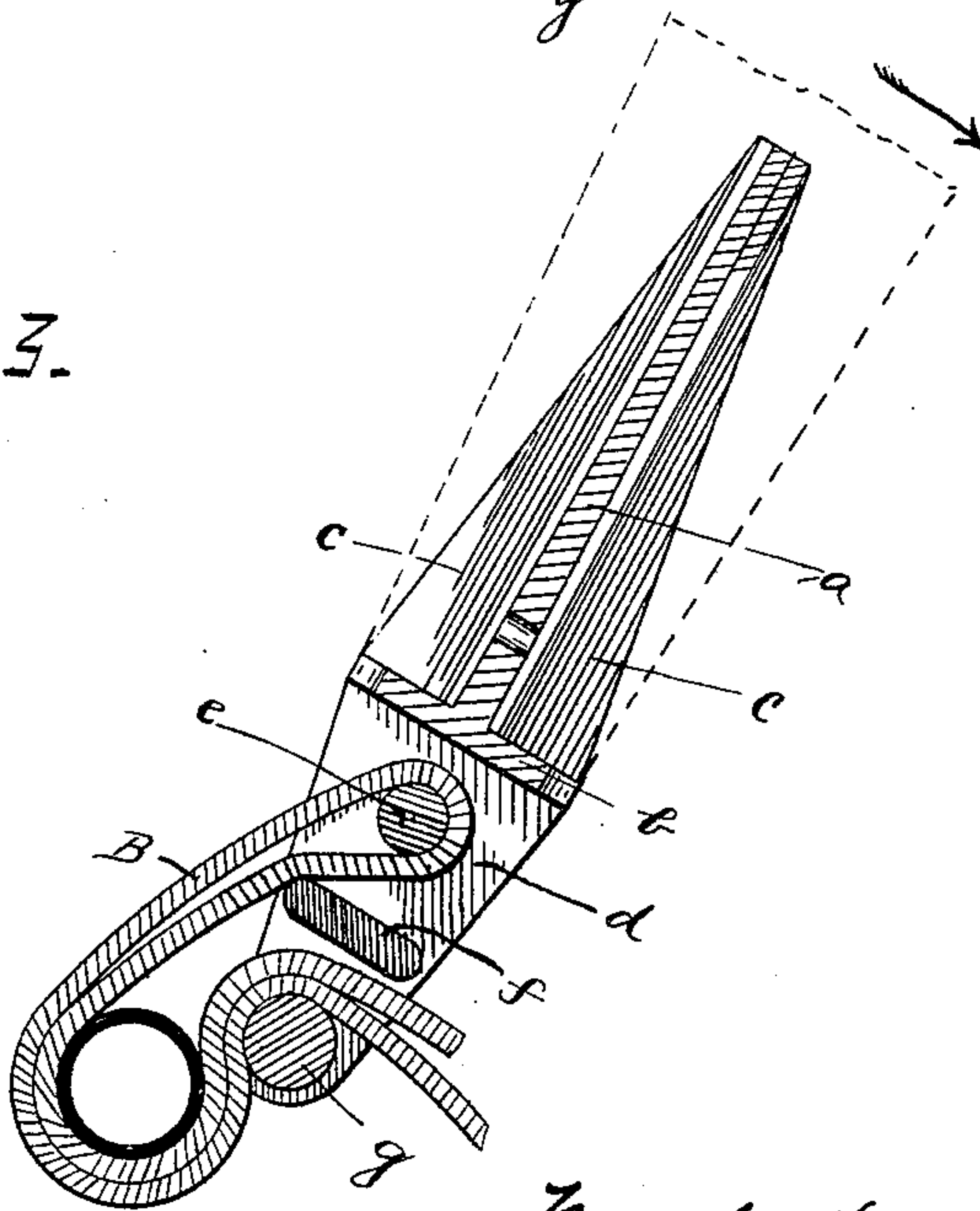


Fig. 3.



WITNESSES

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 481,257, dated August 23, 1892.

Application filed December 12, 1891. Serial No. 414,866. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DECHANT, a citizen of the United States, residing at Reading, in the county of Berks, State of Pennsylvania, have invented certain Improvements in Pipe-Wrenches, of which the following is a specification.

This invention has relation to pipe-wrenches; and it consists in certain novel features in the construction thereof, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

The primary object of my invention is to provide a wrench in which the frictional contact between the surface of the pipe or other object and that portion of the wrench in contact therewith and also the amount of surfaces in frictional contact will be increased, whereby the wrench will be more effective in operation than those heretofore constructed and which will accomplish its function without damaging or marring the surface of the pipe.

Another object of the invention is to simplify the construction and lessen the cost of manufacture of such wrenches.

These objects are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my improved wrench. Fig. 2 is a face view of the same with the pipe-engaging end removed. Fig. 3 is a vertical section with a pipe in place and shows the position of the parts in operation.

The same letters of reference are used to designate the same parts in the different figures.

A designates the frame of my improved wrench, and consists of the slightly-tapered web *a*, the horizontal plate *b*, secured to or formed integral with the lower ends of said web *a* and extending outward beyond the same, the upper side plates *c*, extending outward and downward from the upper ends of said web *a* to the outer ends of said plate *b* and tapered from their lower to their upper ends, and the lower side plates *d*, extending downward from the outer ends of said plate *b* and tapered from their upper to their lower side, connecting side plates *d* and traverse-bars *e*, *f*, and *g*.

A handle for operating the wrench may be secured by rivets or other suitable means to the web *a*, as shown in dotted lines in Figs. 1 and 3. Evidently, however, the form of the frame, so far as concerns the securing of the handle thereto, may be materially changed without affecting the operation of the wrench.

The means for encircling the pipe, which forms an essential feature of my wrench, is designated by letter B, and consists of a broad flat flexible band of cloth or other suitable material, which is doubled upon itself, as shown, encircling at its rear end the rod *e* and extending thence out and around the pipe or other object and to and through the opening *h* between the bars.

The bar *e*, which, as stated, is encircled by the band, is preferably round. The bar *f* between bars *e* and *g* may be flat or of any other suitable shape. It insures a sharp bending of the band around the bar *g*. The latter forms the lower extremity of the frame and serves to hold the adjacent portion of the band tightly against the pipe when the wrench is turned in the direction of the arrow. Lateral movement of the band is prevented by the plates *d*, with the inner surfaces of which its edges are in contact.

From the above it will be seen that I have provided an extremely simple and durable pipe, and its encircling device and the surface of the pipe are not liable to be damaged or marred, as is the case where a metallic encircling means, such as a chain, is employed. The formation of the head of the wrench is such as to permit the easy application of any convenient band and to prevent its slipping when in use, the pressure upon the band between the bar *g* and the pipe being increased in proportion to the power applied to turn the pipe.

I do not limit myself to the particular construction of frame or lever shown and described, this being a preferred form, capable, however, of considerable modification. The bar *f* may be entirely dispensed with if bars *d* and *g* be brought closer together, but is advantageous.

What I believe to be new, and desire to secure by Letters Patent, is—

1. The herein-described wrench, consisting of a frame or lever and a band of flexible ma-

terial secured to said frame or lever, adapted to partially encircle a pipe and extending thence through an opening in said frame or lever, the free end of said band on its way
5 from the pipe to the frame extending between said pipe and the lower end of said frame and adapted to be held in close contact with the pipe by said lower end of the frame.

2. The herein-described wrench, consisting
10 of a frame or lever having horizontal rods *e*, *f*, and *g*, and a band of flexible material, as of cloth, secured to said rod *e*, adapted to partially encircle a pipe and extending thence through an opening between said rods *f* and
15 *g*, said rod *g* serving to hold the adjacent portion of the fabric in close contact with the pipe, substantially as described.

3. The herein-described wrench, consisting of a frame or lever having a horizontal bar *e*,
20 and a band of flexible material doubled upon itself engaging said bar at its upper end, adapted to partially encircle a pipe and extending thence through an opening in said frame or lever, the free end of said band on

its way from the pipe to the frame extending 25 between said pipe and the lower end of said frame and adapted to be held in close contact with said pipe by said lower end of the frame, substantially as described.

4. The herein-described wrench, consisting 30 of a frame or lever having horizontal bars *e*, *f*, and *g* and opening *h*, and a band of flexible material, as of cloth, doubled upon itself, engaging said bar *e* at its upper end, extending from opposite sides of the same parallel with 35 each other to and through said opening and adapted to partially encircle a pipe in its passage from the bar *e* to the opening, and bar *g* serving to hold the adjacent portion of the band in close contact with the pipe, substan- 40 tially as described.

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

WILLIAM H. DECHANT.

Witnesses:

E. C. SEMBOWER,
M. L. FISH.