

UNITED STATES PATENT OFFICE.

SAMUEL D. THURSTON, OF SOMERVILLE, OHIO.

BROOM-HEAD.

Specification forming part of Letters Patent No. 51,631, dated December 19, 1865.

To all whom it may concern:

Be it known that I, SAMUEL D. THURSTON, of Somerville, Butler county, Ohio, have invented a new and useful Metallic Broom-Head; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This improvement belongs to the class of devices intended to enable farmers and others residing in the country to refill their own brooms at any time.

Figure 1 shows a complete broom with my improved head. Fig. 2 shows the metallic head in condition to receive the twigs or whips or other material. Fig. 3 shows the head in the closed form. Fig. 4 shows a modification of my straps. Fig. 5 shows a modification of my screw-pointed handle.

A is a crescent-formed sheath of thin metal, flexible toward its extremities A' A'', which, when left at liberty, diverge in the manner shown in Fig. 2. A hole, *a*, in the sheath, permits the insertion of the tapered and screw-threaded extremity *b* of a handle, B, of wood.

a' *a''* are orifices for wood-screws, whose insertion into the handle B completes the formation of the broom.

The sheath A may also have two slots, *a'''* *a''''*, for the reception of the hinges C and C', which connect together the two limbs *d* *d'* of the strap D, and the two limbs *e* *e'* of the strap E. Each strap, D and E, is provided at one end with an eye, F or F', and at its other end is traversed by a slot, G or G'. Each strap has two barbs, H, which point toward the bend or hollow portion of the strap.

The head is filled in manner following: The straps D and E, having been coupled together on one side by the insertion of the ring or eye F into the slot G, are laid upon a bench or table and the sheath placed upon them so as for its ends A' and A'' to occupy the bends of the straps. A suitable quantity of whips or other material being then introduced, the limbs *d'* and *e'* of the straps are brought down to the posi-

tion shown in Fig. 2, so as to engage the eye F' within the slot G'. The free ends of the straps and the ends A' A'' of the sheath are then crowded toward each other enough to bring the eyes F and F' so nearly coincident as to permit the insertion of the screw-threaded point of the handle, which, being then rotated, acts to draw the ends and sides of the straps and the ends of the sheath together, so as to crowd the material on the outside while the handle itself is crowding it on the inside, the barbs H at the same time preventing the escape of the material from the bends of the straps and keeping the edges of the broom full and dense. Finally, two small wood-screws are passed through the holes *a'''* *a''''* into the substance of the handle B.

The above-described device is susceptible of various modifications. For example, each strap may be formed of a single piece of spring steel or brass, and may be retained upon the sheath by any suitable projection formed upon the latter. The screw-thread *b* may be on the outside of a metallic ferrule, or may be cut upon the wooden handle itself.

I have described my mode of filling the metallic head by hand; but the process may be better and more quickly performed by providing a few simple clamps and levers for holding and compressing the parts in the act of filling.

I claim herein as new and of my invention—
1. The crescent-formed metallic sheath A A' A'', and tightening-straps D F G E F' G', adapted to operate in conjunction with a tapering screw-pointed handle, in the manner set forth.

2. In combination with the parts specified in the foregoing clause, the barbs H H, applied and operating as and for the purposes set forth.

In testimony of which invention I hereunto set my hand.

S. D. THURSTON.

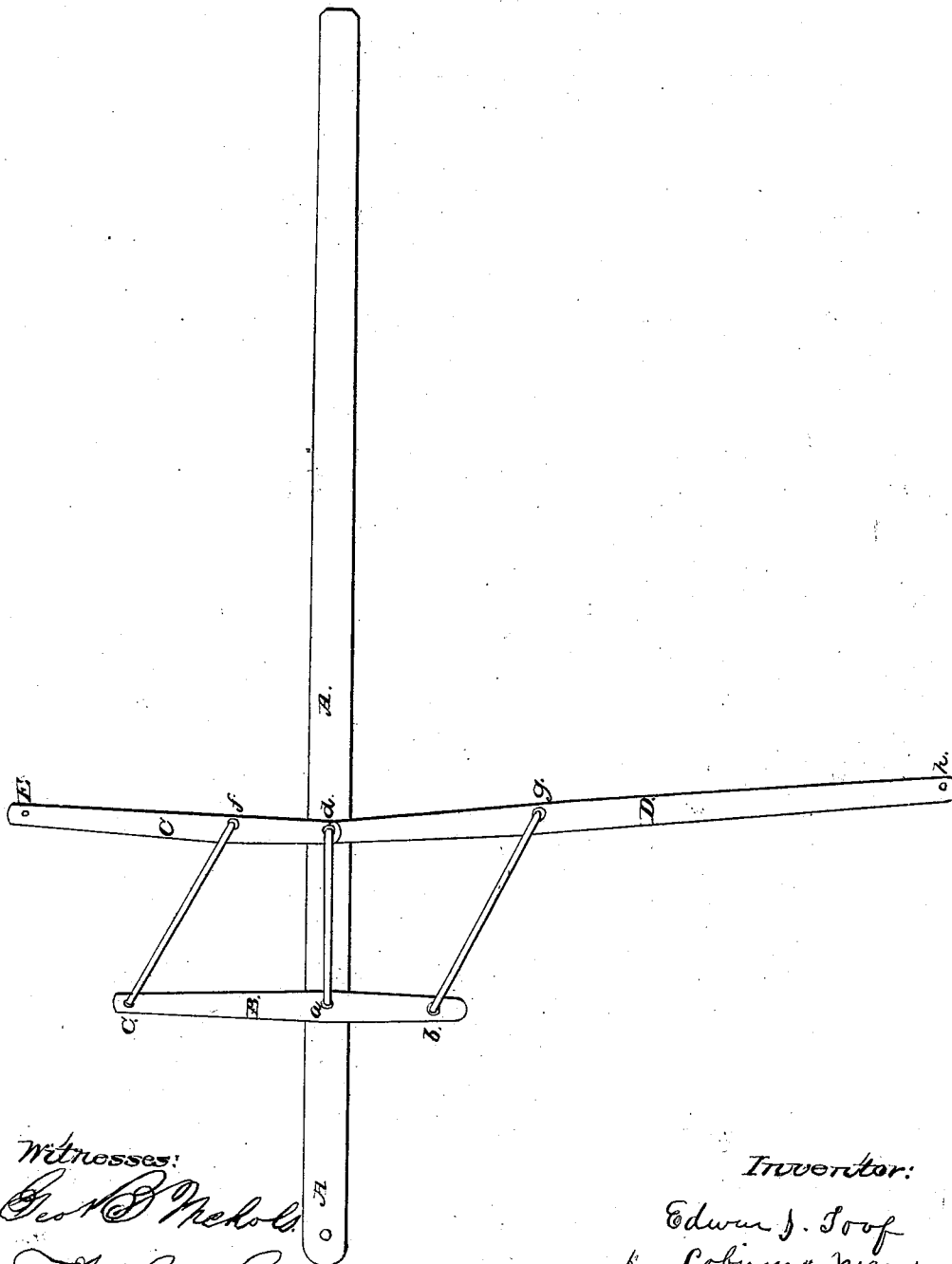
Witnesses:

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