

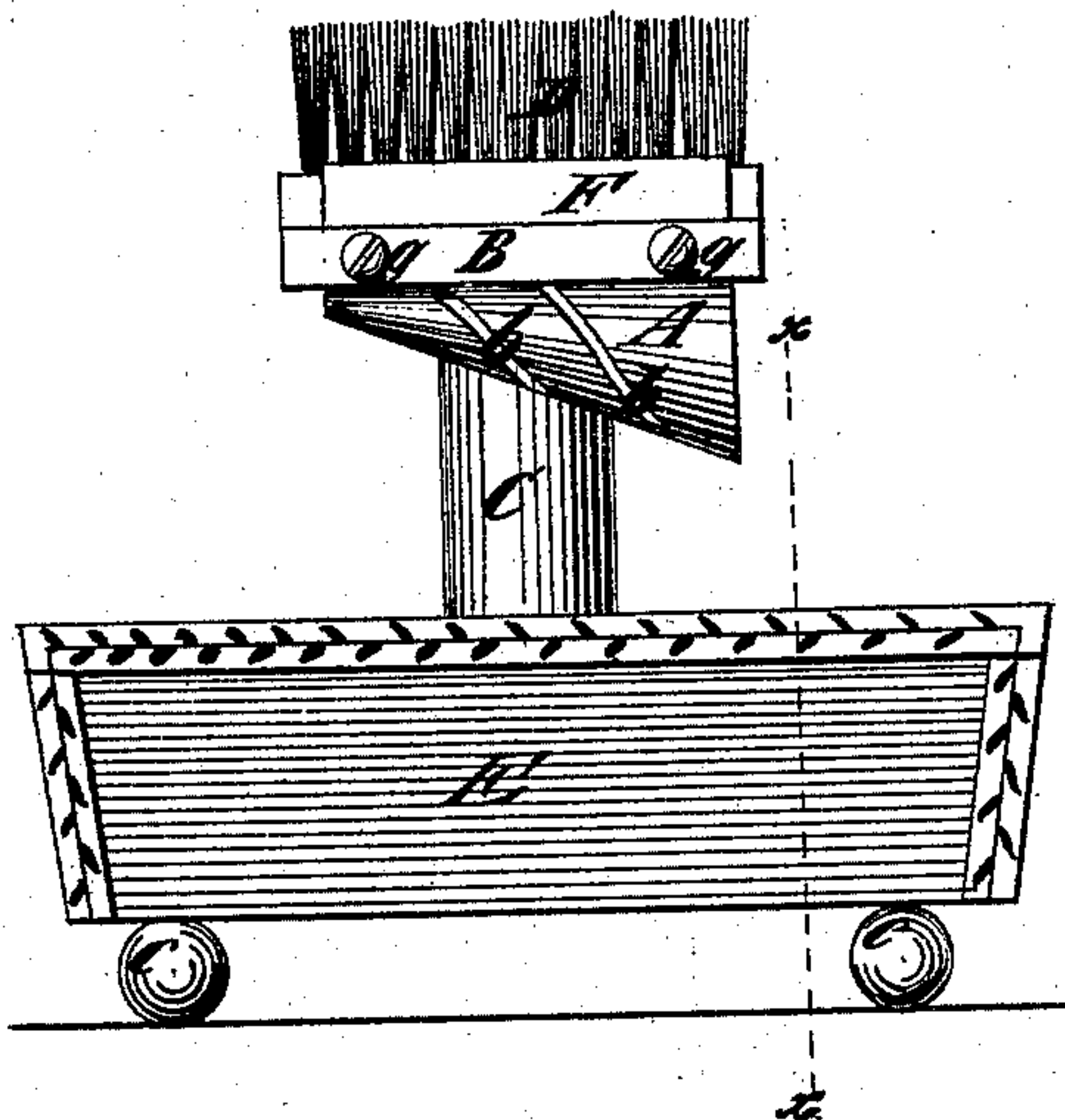
(Model.)

F. M. LIVINGSTON.  
Pencil Sharpener.

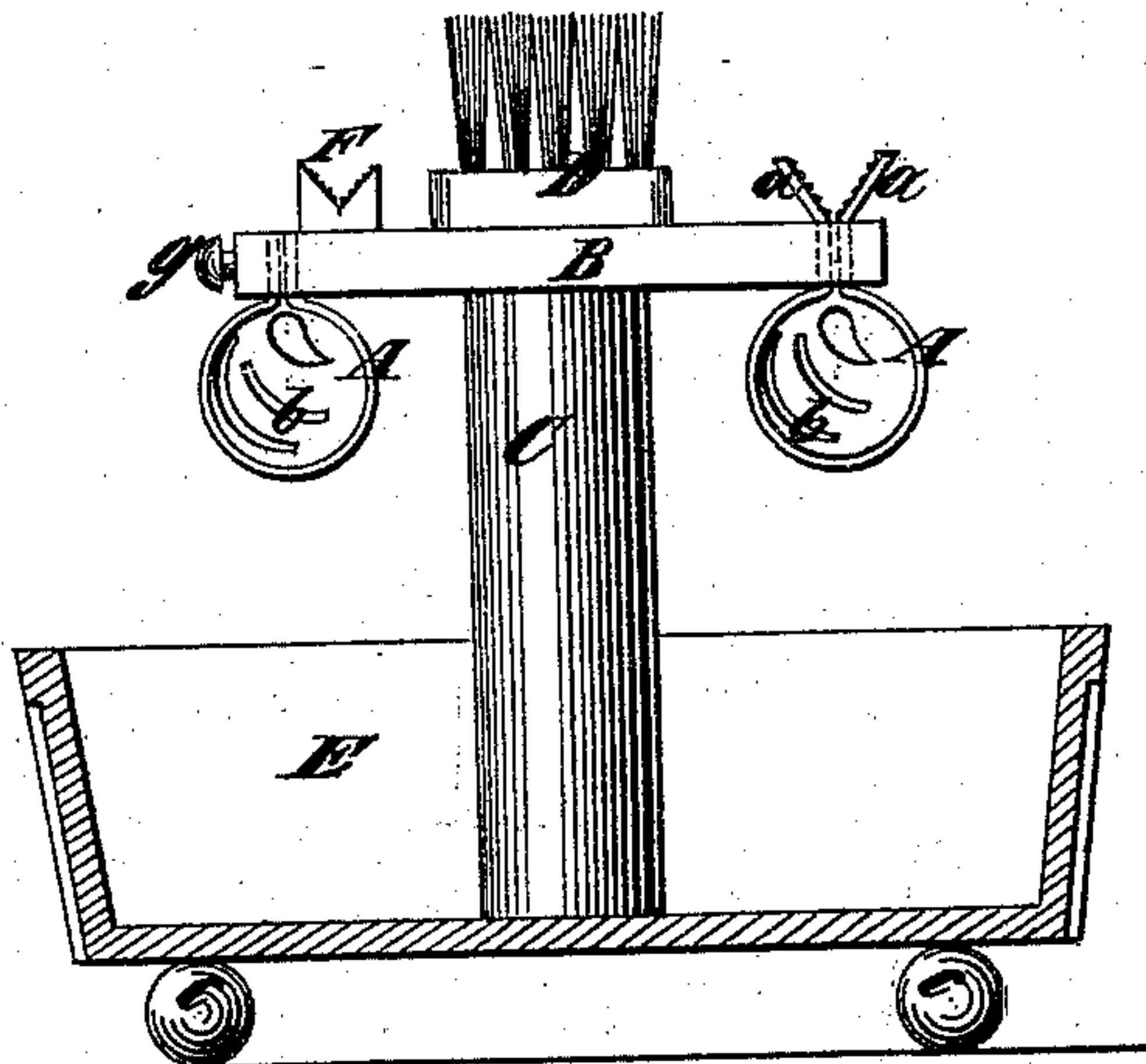
No. 229,323.

Patented June 29, 1880.

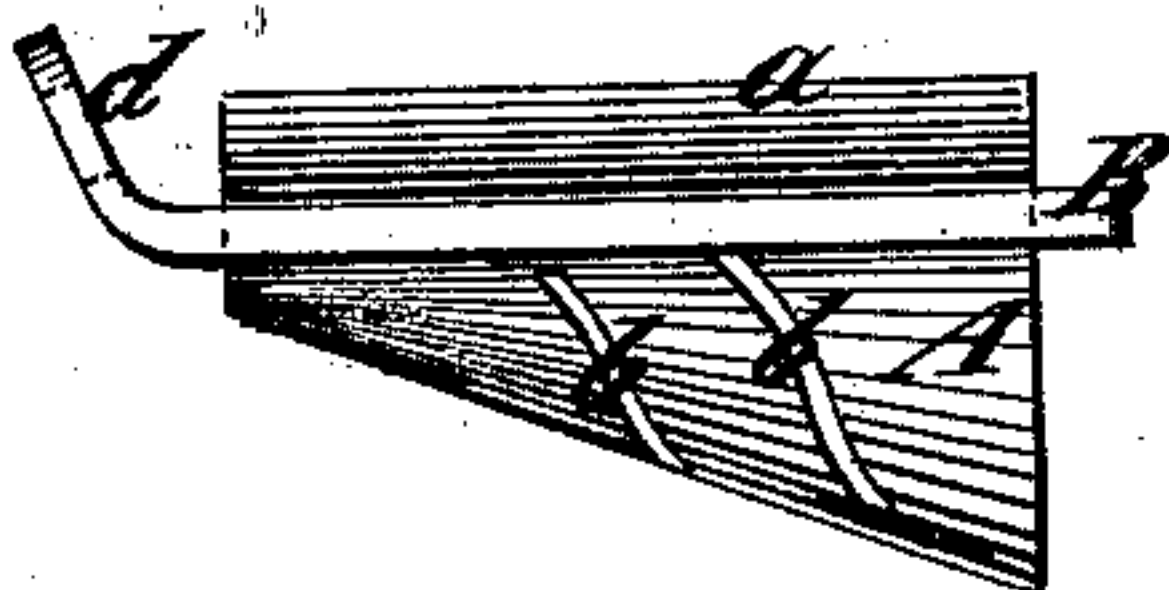
*Fig 1.*



*Fig 2.*



*Fig 3.*



*Fig 4.*



Witnesses:  
Chandler Hale,  
J. W. Hagner

Inventor.  
Francis M. Livingston  
by his Attorney  
Brown & Brown



# UNITED STATES PATENT OFFICE.

FRANCIS M. LIVINGSTON, OF NEWARK, NEW JERSEY, ASSIGNOR TO D. B. HOWELL & CO., OF NEW YORK, N. Y.

## PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 229,323, dated June 29, 1880.

Application filed May 19, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, FRANCIS M. LIVINGSTON, of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Pencil-Sharpeners, of which the following is a specification.

The object of my invention is to produce a pencil-sharpener of handsome appearance and one which may be conveniently used.

My invention consists in the combination, with a tapering or conical pencil-sharpener made from a single piece of sheet metal, of a securing device through which the meeting edges are passed, the said edges being then bent outwardly, forming an angular trough, the sides of which are serrated, so as to form abrasive surfaces for pointing a pencil.

It also consists in a novel arrangement of one or more pencil-sharpeners, a file, and a brush over a pan or tray, whereby an ornamental and useful device is produced.

In the accompanying drawings, Figure 1 represents a side elevation of a pencil-sharpener embodying my improvements. Fig. 2 is a partial section thereof, taken at right angles to Fig. 1 on dotted line *x x*. Fig. 3 is a side view of a modified form of my invention. Fig. 4 is an end view thereof.

Similar letters of reference designate corresponding parts in all the figures.

A designates the sharpeners, which are tapering or conical, so as to give the proper shape to a pencil-point, and of which two are here represented. These sharpeners are preferably formed of a single piece of sheet-steel, and have their meeting portions *a* bent outward at an angle to the body of the sharpener into face-to-face contact, and held or clamped in a securing device, B, which surrounds them, and is here represented as consisting of a cross-piece mounted on a pillar-support, C.

In these sharpeners are cut slots *b*, extending spirally along the body, and having one edge depressed, forming spiral cutting-edges or knives.

The sharpeners may be held in the securing device B by set-screws *g*; but I prefer to make their meeting edges *a* sufficiently long to permit of their being bent outwardly, as clearly represented in Fig. 2, one of the sharp-

eners shown in said figure being of such construction. The upper surfaces of these edges may be serrated, so as to form abrasive or file-like surfaces, upon which the pencil may be pointed.

F designates a device for pointing pencils, consisting of a piece of metal mounted on the cross-piece B, and having a grooved upper surface, the sides of which are serrated to form abrasive surfaces.

D designates a brush mounted upon top of the cross-piece B, by which a pencil may be cleaned after sharpening and pointing.

E designates a tray or pan mounted on feet *c*, in which the shavings and dust made in sharpening a pencil are caught and held.

As the pillar-support is situated at or near the center of the pan or tray, the sharpener, file, and brush are supported near the center, and all dirt made by them is caught by the pan or tray.

In Figs. 3 and 4 I have represented a modified form of my sharpener adapted to be carried in the pocket.

The securing device B, through which the edges of the sharpener are passed, and in which they are secured, is provided at its end with an eye, *d*, by which it may be suspended from a nail or hook, in order to use it more conveniently.

It will be seen that by my invention I produce a pencil-sharpener which may be very cheaply manufactured, and one which may be very conveniently used, and presents a handsome appearance.

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

1. The combination, with a tapering or conical pencil-sharpener made from a single piece of sheet metal, of a securing device through which the meeting edges are passed and then bent outwardly, forming an angular trough, the sides of which are serrated, so as to form abrasive surfaces, substantially as specified.

2. As a new article of manufacture, a device for sharpening pencils, comprising a pan or tray, a sharpener or sharpeners made of a tapering or conical piece of metal provided with spiral slots, the cutting-edges of which are depressed to form knives and erected upon

supports extending from the bottom of the pan or tray, so that the shavings cut thereby fall into the pan or tray, a file, also borne upon a support erected from the bottom of the pan  
5 or tray, so that the material removed thereby will be caught by said pan or tray, and a brush whereby a pencil after being sharpened may

be cleaned, so as not to soil the fingers, substantially as specified.

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Witnesses:

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