

P. NEFF.

SCRAPERS FOR LAMP BLACK APPARATUS.

No. 176,476.

Patented April 25, 1876.

Fig. 1 -

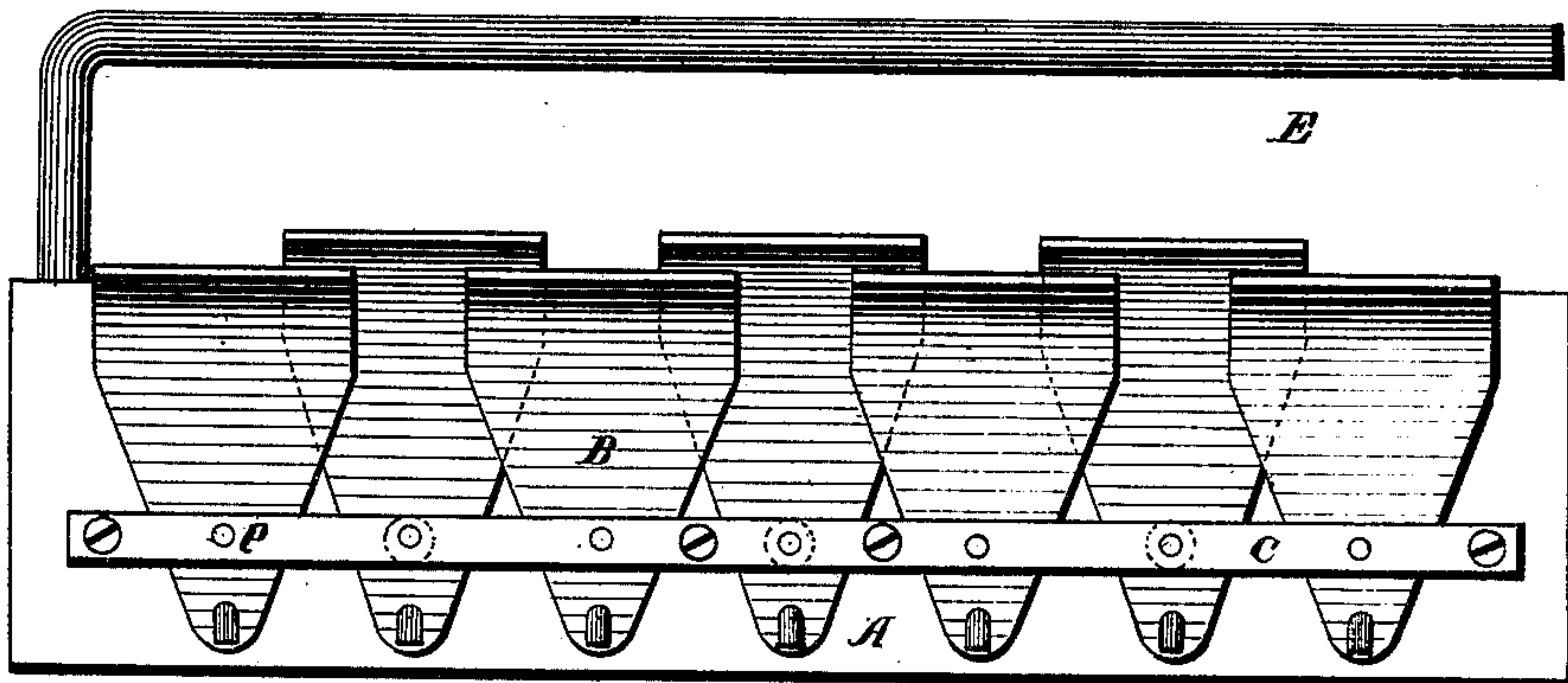
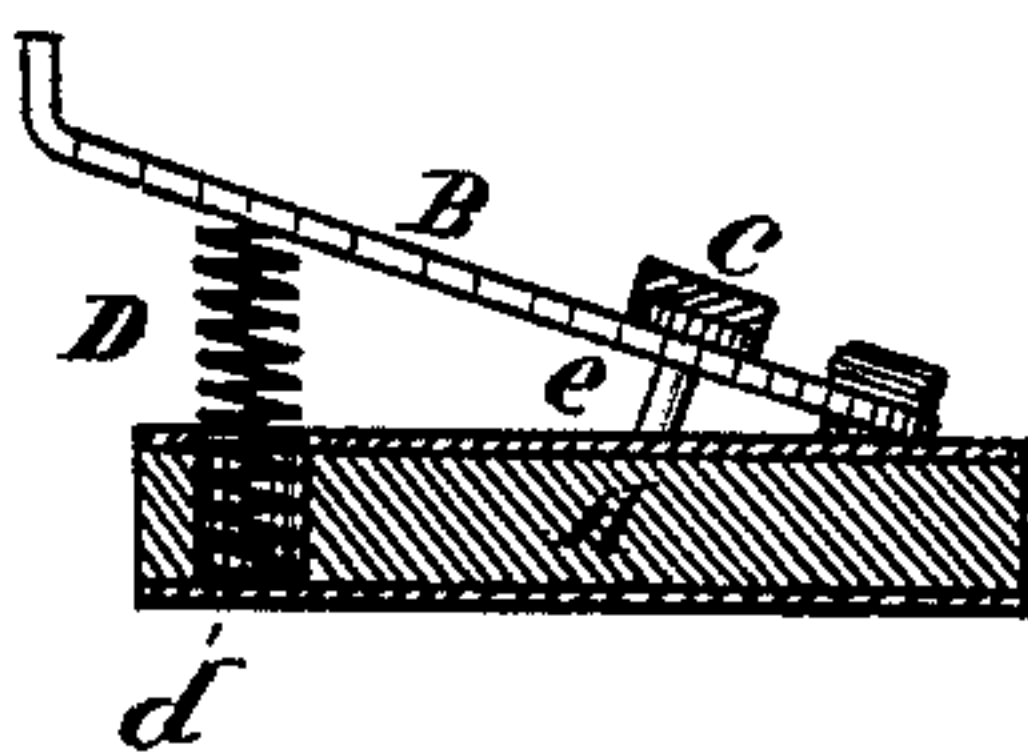


Fig. 2



WITNESSES

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IMPROVEMENT IN SCRAPERS FOR LAMP-BLACK APPARATUS.

Specification forming part of Letters Patent No. **176,476**, dated April 25, 1876; application filed March 15, 1876.

To all whom it may concern :

Be it known that I, PETER NEFF, of Gambier, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Manufacturing Lamp-Black; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to scrapers or brushes used in the manufacturing apparatus of carbon or lamp-black; and consists in any number of stiff inflexible metallic scrapers, attached at one extremity to a rigid body, while their working edges overlap one another, and have a vertically-acting capacity from mechanism, as afterward described.

In the drawings, Figure 1 is a plan, and Fig. 2 a cross-section, of my improvement, in which—

A is a bar or body of any material or construction, provided it be firm and unyielding. B is a scraper, constructed preferably of sheet metal, though the same may be varied for any substance which incorporates the features of rigidity and inflexibility. This scraper is secured at its lower extremity to the supporting-bar by eye and bolt, or any mechanism which will firmly connect the two, and yet permit of a free and easy movement on the part of the scraper. Running transversely across the working faces of the scrapers is the unyielding strip or stop-piece C, parallel to the bar, and fastened thereto, so that it may act as a limiting guard, and prevent the tendency of the scrapers to rise by force of the tensioned springs beyond the fixed and uniform height, as regulated and defined by such stop-bar. A pivot or eye pin, *e*, passing loosely through the lateral center of each scraper, and engaging at respective extremities with the supporting and stop bars, permits of the free vertical slide thereon of the scraper, as it is influenced by a pressure from above or the spring from below.

This spring D may be spiral, as shown in the drawings, or it may be of any construction or composition, excepting only that the latter be elastic and appropriately yielding, and is interposed between the rigid support A and the

scraper, so that it may perform the double function of an upward impelling force, and a cushion, by means of which the scraper may be brought to an approximately plane level. After attachment to the scraper the spring finds seating in the well *d*, of such construction that, if necessary, the spring may therein countersink and bring the scraper well down against the face of the supporting-bar.

It is apparent that the foregoing describes mechanism which, in actual use, may be supplemented in number or immaterial modification of parts, and can be constructed so as to conform to any style of depositing-surface, plane, convex, cylindrical, or concave, to surfaces on which carbon is deposited by burning upward, or those in which the burners are inverted, &c.

Said scrapers may be used in any appropriate manner, and while I do not restrict myself to any co-operating agencies, yet I will describe one mode of their operation. Beneath any depositing-surface, on a tramway, may travel a car suitably constructed, to which my scrapers may be attached, so as to snugly press same against the depositing-surface. As the car advances the springs D impart a strong biting friction to the working edges of the scrapers, and yet allow of their singly or jointly yielding to any inequality, obstruction, or depression on the depositing-plate, so that by this means, as well as through the overlapping extremities, which serve as it were to break joint, a clean exhaustive sweep of all the carbon is obtained. The attachment to the car may be by the rear rod or strip E, together with clamps, screws, or bolts, directly connected to the bed of the support A, or by any suitable means. This rear bar acts as a lever to keep the scraper from tilting back. This latter (the scraper) lies on the carriage, held in place by pins, and is thus readily removable; but when the depositing-surface itself revolves, either as a concave or convex cylinder, the scraper is stationary.

It will be observed that the attachment of the scraper B to the supporting-body A is sufficiently loose and free to allow of the former having a lateral and rocking movement, so that either end of the working edge of same may tilt conformably to any inequality on the

depositing-surface, and yet allow of the opposite extremity being pressed against, and meanwhile cleaning, the surface, where free from such obstruction.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a scraper for the removal of lamp-black from its depositing-surface, the combination, with a rigid cross-bar, of overlapping metallic scrapers, the same loosely hinged to the cross-bar, and their outer ends pressed upward by interposed springs, substantially as and for the purpose described.

2. In a scraper for the removal of lamp-black, the combination, with hinged and overlapping metallic scrapers and springs seated in the cross-bar, and supporting the free ends

of said scrapers, of a stop-bar extending transversely over the inner ends of the scrapers to limit their upward movement, substantially as and for the purpose set forth.

3. The combination, with the overlapping scrapers, of the stop-bar, as described, and guide-pins passing through the scrapers, and secured to the cross-bar and stop-bar, whereby the scrapers are restricted in their vertical and lateral movements, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of March, 1876.

PETER NEFF.

Witnesses:

REBEKAH NEFF,
E. CLIFFORD NEFF.