(No Model.)

C. S. HOWLAND.

RUBBING DOWN DEVICE FOR MOUNTING PHOTOGRAPHS.

No. 375,820. Patented Jan. 3, 1888.

Fig. 1

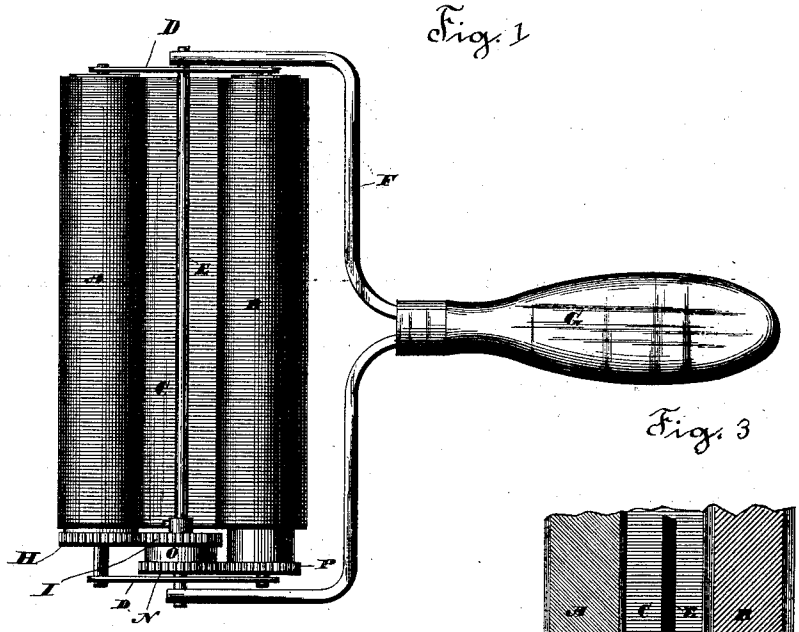


Fig. 3

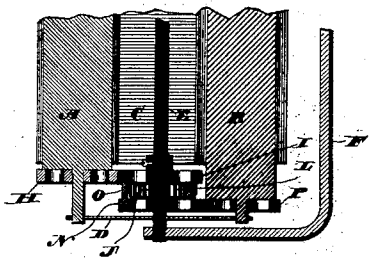


Fig. 2

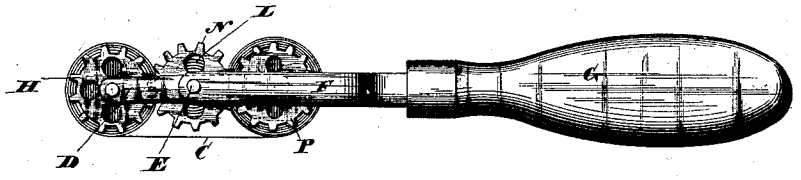


Fig. 4

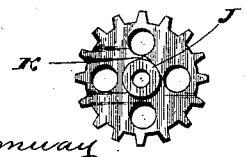


Fig. 6

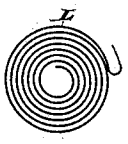
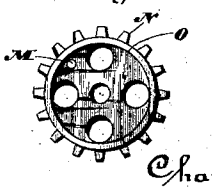


Fig. 5



Witnesses:
Chas. B. Shumway
Edward H. Rogers

Inventor
Charles S. Howland
By Geo. D. Seymour.
Attn.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES S. HOWLAND, OF CAMPVILLE, CONNECTICUT.

RUBBING-DOWN DEVICE FOR MOUNTING PHOTOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 375,820, dated January 3, 1888.

Application filed October 3, 1887. Serial No. 251,318. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. HOWLAND, residing at Campville, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Rubbing-Down Devices for Mounting Photographs; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in rubbing-down devices for mounting photographs, the object being to produce a portable article combining cheapness and simplicity of construction with convenience, durability, and efficiency in use.

With these ends in view my invention consists in a rubbing-down device having two rolls, a strip of cloth attached to and wound upon them, and means, including a spring, for equalizing their action.

My invention further consists in a rubbing-down device having two rolls, a strip of cloth attached to and wound upon them, and gearing connecting them and including an equalizing-spring.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a rubbing-down device constructed in accordance with my invention. Fig. 2 is a view thereof in side elevation. Fig. 3 is a broken sectional view showing the equalizing-gearing. Fig. 4 is a detached view, in outside elevation, of the loose inner pinion. Fig. 5 is a similar view, in inside elevation, of the loose outer or flanged pinion; and Fig. 6 is a detached view of the equalizing-spring.

As herein shown the device consists, in part, of two parallel rolls, A and B, connected by a long strip, C, of muslin or other fabric, which is wound upon them and journaled in the outer ends of two frame-pieces, D D, rigidly secured to the opposite ends of a shaft, E, mounted to turn freely in a yoke or frame, F, having an operating-handle, G, attached to it, as shown. A pinion, H, secured to one end of the roll A, meshes into a loose pinion, I, mounted upon the shaft E, and provided upon its outer face with a hub, J, furnished with a finger, K, engaged by the perforated inner end of a spiral spring, L, having its outer end bent to engage with a pin, M, located near the periphery of a pinion, N, also loosely mounted upon the shaft E, provided with an inwardly-projecting flange, O, inclosing the said spring, and meshing with a pinion, P, rigidly secured to the roll B, as shown.

The described gearing connecting the two rolls prevents them from turning under the weight of the strip, as would otherwise result. The spring equalizes their action when they rotate at different rates, owing to being virtually different in size by an unequal division of the strip between them. When the two rolls rotate alike, the pinions I and N rotate as one pinion. When, on the other hand, the rolls rotate at different rates, the spring winds or unwinds, according to the direction of their rotation, permitting the pinions I and N to rotate independently and compensate for the different rotations of the rolls. Then, as soon as the device is lifted to relieve the rolls of the friction between them and whatever they may be resting upon, the spring recovers and turns them and draws the strip taut between them. The shaft E being mounted to turn freely in the yoke, the rolls readily conform in inclination to the surface over which they are passed, and both rolls may be rotated around such shaft as a center.

In using the device it is placed upon the photograph or other article to be rubbed down and passed back and forth over the same, the rolls rotating, and hence unwinding the strip from one roll and winding it upon the other. When the strip becomes soiled in one part, the rolls are rotated to shift it to expose it where unsoiled.

I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such change and alterations as fairly fall within the spirit and scope of my invention.

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

1. A rubbing-down device for mounting photographs, having two rolls, a strip of cloth

attached to and wound upon them, and means, including a spring, for equalizing their action, substantially as set forth.

2. A rubbing-down device for mounting photographs, having two rolls, a strip of cloth attached to and wound upon them, and gearing connecting them and including an equalizing-spring, substantially as set forth.

3. A rubbing-down device for mounting photographs, having two rolls, a strip of cloth attached to and wound upon them, a pinion attached to each roll, two independent pinions respectively meshing into the pinions secured to the rolls, and a spiral spring coupling such independent pinions and winding or unwinding to equalize the action of the rolls when they rotate at different rates, substantially as set forth.

4. A rubbing-down device for mounting photographs, having two rolls, two frame-pieces in which they are journaled, a shaft to which such frame-pieces are secured, a yoke carrying such shaft and provided with a handle, and means for equalizing the action of the rolls, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES S. HOWLAND.

Witnesses:
WILLIAM J. LUM,
BESSIE JOHNSON.