

March 20, 1928.

1,663,208

E. MAYER

BROMOIL BRUSH

Filed May 23, 1927

Fig. 1.

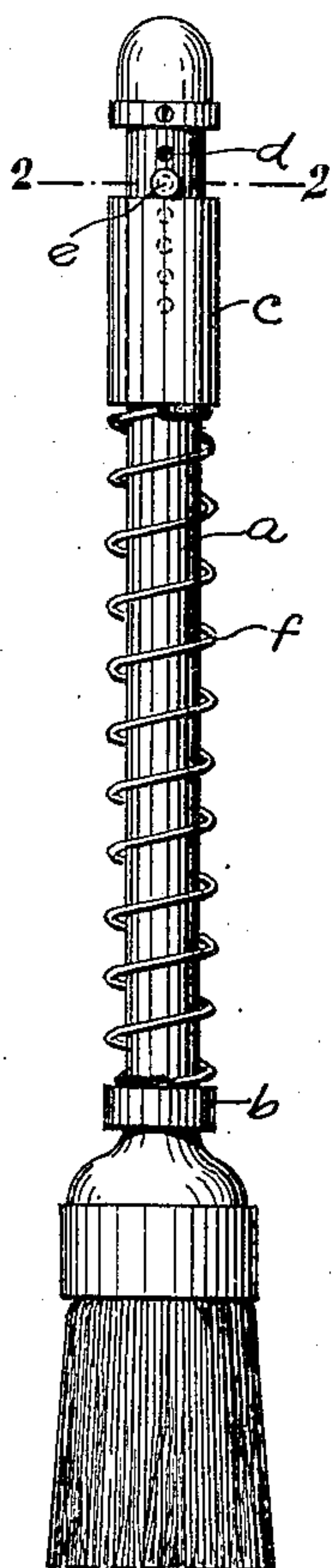


Fig. 3.

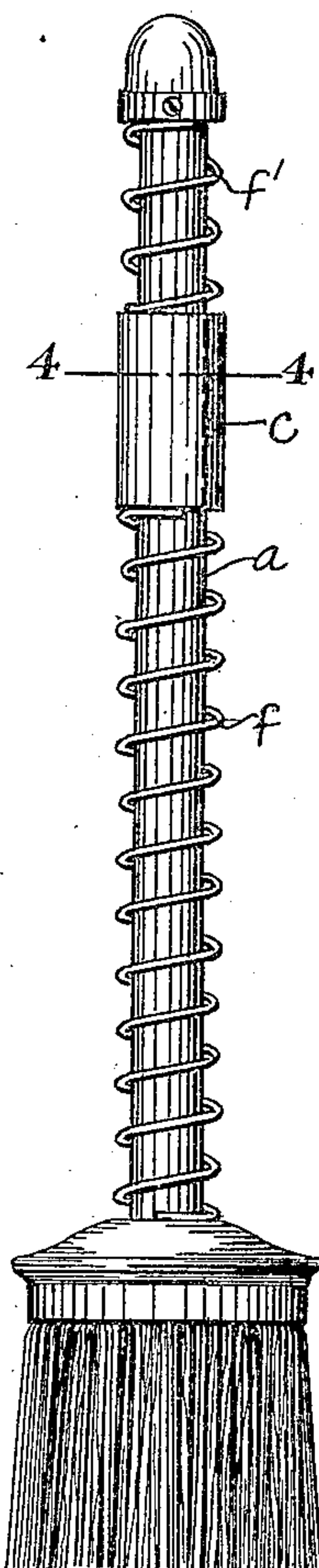


Fig. 5.

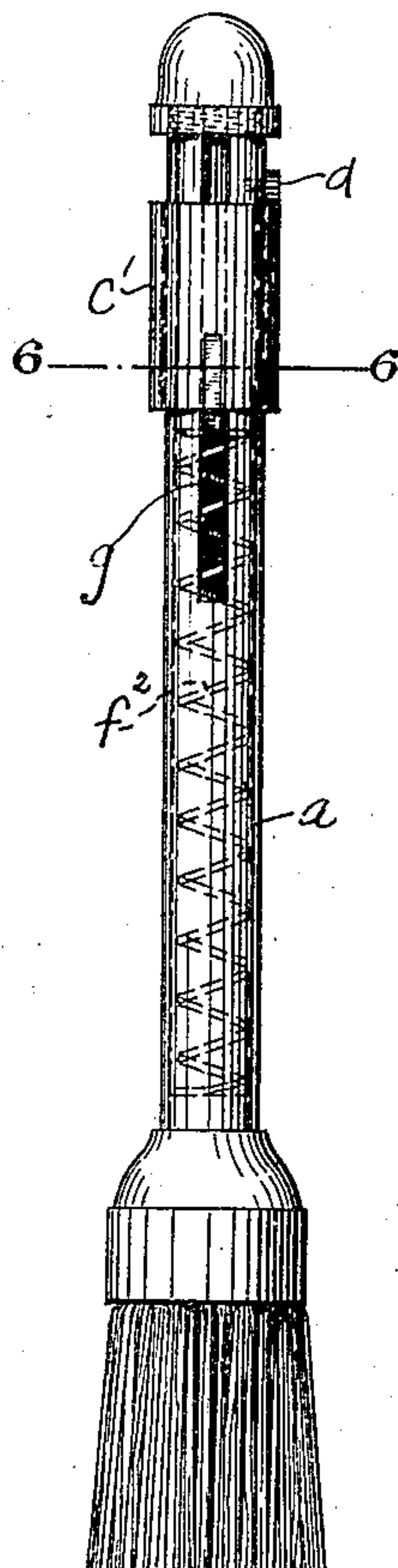


Fig. 2.

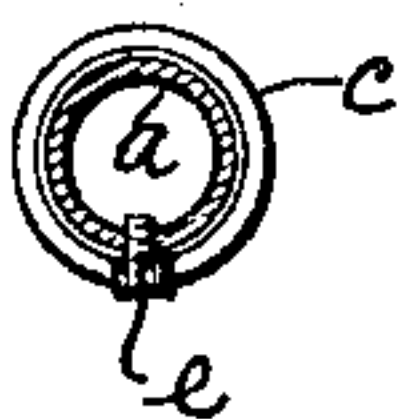


Fig. 4.

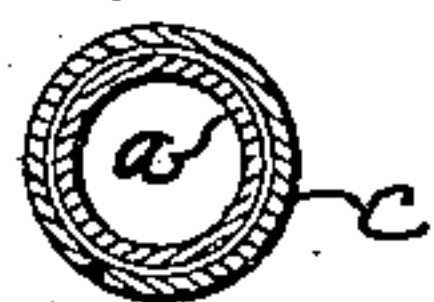


Fig. 6.



INVENTOR

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UNITED STATES PATENT OFFICE.

EMIL MAYER, OF VIENNA, AUSTRIA, ASSIGNOR TO DREM PRODUCTS CORPORATION,
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BROMOIL BRUSH.

Application filed May 23, 1927. Serial No. 193,716.

My invention relates to a new and improved bromoil brush, that is, a brush to be utilized in the bromoil process.

One of the objects of my invention is to provide a brush which will facilitate the application of the oily pigment utilized in the bromoil process.

Another object of my invention is to combine a brush with a spring device so that the action of the spring neutralizes the effect of the weight of the brush.

Other objects of my invention will be set forth in the following description and drawings which illustrate preferred embodiments thereof, it being understood that the above general statement of the objects of my invention is intended merely to generally explain the same and not to limit it in any manner.

Fig. 1 is a perspective view showing one embodiment of my invention.

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view showing a second embodiment of my invention.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a perspective view showing a third embodiment of my invention.

Fig. 6 is a section on the line 6—6 of Fig. 5.

The bromoil process depends upon the application of oily pigment upon a swelled gelatin relief prepared from a positive by means of a suitably shaped brush. The pigment is first applied in a somewhat thick layer and it is then distributed by dextrous manipulation of a brush. The beautiful effect secured by the bromoil process is increased if the distribution of the pigment can be easily and quickly effected. This distribution is effected by means of quick, light strokes and it is ordinarily rather difficult to manipulate the large brushes utilized for this purpose because the weight of such a brush produces a heavy pounding action and it is rather difficult to produce a slight falling motion when the brush is operated by hand.

It has been previously attempted to combine the brush with various devices for imparting a springy movement to the brush. For example, it has been proposed to attach a springy wire to such a brush, the said wire being perpendicular to the axis of the brush,

and to provide the free end of such a wire with a hand-hold, so that the said brush and the said wire has the same relation to each other as the head of a hammer and the handle of a hammer.

In such a device, however, the weight of the brush has an even stronger effect because the brush in effect is located at the end of a lever, which is a serious disadvantage. In addition, this construction makes it even more difficult for the operator to cause the brush to contact with the desired support in order to deposit pigment thereon. Finally, and in a device of this kind, the brush oscillates in a pendulum-like manner, which is an additional disadvantage.

According to the present invention, the brush is combined with a spring which only permits a relative movement of the brush in a direction parallel to the axis thereof. This device largely reduces the effect of the weight of the brush in applying the pigment.

As shown in Fig. 1, the handle *a* of the brush is preferably cylindrical and it is connected by solder or the like to a ring *b* which is located immediately above the binding of the bristles of the head of the brush. A spiral spring *f* has the bottom thereof connected to the ring *b* and the spring *f* is coiled around the handle *a* of the brush so that the said handle *a* can move freely with respect to the spring. Hence, the handle *a* forms a relatively movable core member located within the windings of the spiral spring *f*. The spring *f* terminates at and is connected to a tubular hand-hold *c* which loosely surrounds the brush handle. If the brush is held by means of the hand-hold *c* and is thrust lightly against the bromoil print surface, then the spiral spring *f* will cause an oscillating or vibrating motion of the brush in a direction parallel to the axis of its handle. This will cause an easy and extremely delicate distribution of the pigment in a manner which cannot ordinarily be equaled by ordinary manual operation. In addition, the spring substantially neutralizes the effect of the weight of the brush so that the brush head can vibrate freely, thus accelerating and facilitating the operation to a very large extent.

The handle *a* is provided with a series of vertically arranged perforations *d* and the sleeve or hand-hold *c* can be held in adjusted position on the handle *a* by means of the

screw *e* which fits within the correspondingly threaded perforations *d*. It is clear that if the screw *e* is located in one of the lower perforations *d* that the spring *f* will have
 5 its compression increased so as to decrease the period of free vibration of the brush.

In the embodiment shown in Fig. 3 the sleeve *c* has the spring *f* connected thereto as, for example, by solder, and the bottom
 10 of the spring *f* may also be suitably connected to the adjacent part of the brush. A second spring *f'* is located intermediate the sleeve *c* and the head of the handle *a*.

In the embodiment shown in Figs. 1-4,
 15 the spring or springs are external to the handle *a*.

In the embodiment shown in Figs. 5 and 6, the handle *a* is hollow and it is provided with an internal spring *f*², the bottom of
 20 which abuts a solid portion of the brush handle, so that the action of the spring *f*² is the same as that of the spring *f*.

The hollow top of the brush is provided with a vertical slot *g* and a sleeve *c'* is provided with a transverse member *k* which fits
 25 within the slot *g* so as to suitably guide the movement of the sleeve *c'* upon the handle *a*, and to prevent the sleeve *c'* from turning on the handle *a*. A screw *d* may be provided to enable the sleeve *c'* to be adjusted
 30 upon the handle *a*.

I have shown a preferred embodiment of my invention, but it is clear that numerous changes and omissions could be made without departing from its spirit.
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I claim:—

1. A bromoil brush comprising a hand-

hold substantially aligned with the axis of the handle of the brush, and spring means connecting the said hand-hold and said handle, the said hand-hold and the handle being
 40 movable with respect to each other, said spring means being sufficiently soft to permit said brush to freely vibrate when the head thereof is pushed against the print to
 45 be covered with pigment.

2. A bromoil brush having a handle, a sleeve located on said handle and relatively movable thereto, and spring means connecting said handle and said sleeve said spring
 50 means being sufficiently soft to permit said brush to freely vibrate when the head thereof is pushed against the print to be covered with pigment.

3. A bromoil brush having a handle, a sleeve adjustably located on said handle and relatively movable thereto in the adjusted position, and spring means connecting said handle and said sleeve said spring means
 60 being sufficiently soft to permit said brush to freely vibrate when the head thereof is pushed against the print to be covered with pigment.

4. A bromoil brush having a handle, a sleeve located on said handle and relatively
 65 movable thereto, spring means connecting said handle and said sleeve and means adapted to adjust the force of the spring means said spring means being sufficiently soft to permit said brush to freely vibrate when the
 70 head thereof is pushed against the print to be covered with pigment.

In testimony whereof I affix my signature.

DR. EMIL MAYER.