

May 23, 1933.

S. KAMINSKI

1,910,294

HIGH GLOSS DRYING APPARATUS FOR PHOTOGRAPHIC PRINTS

Filed March 25, 1930

2 Sheets-Sheet 1

Fig. 1.

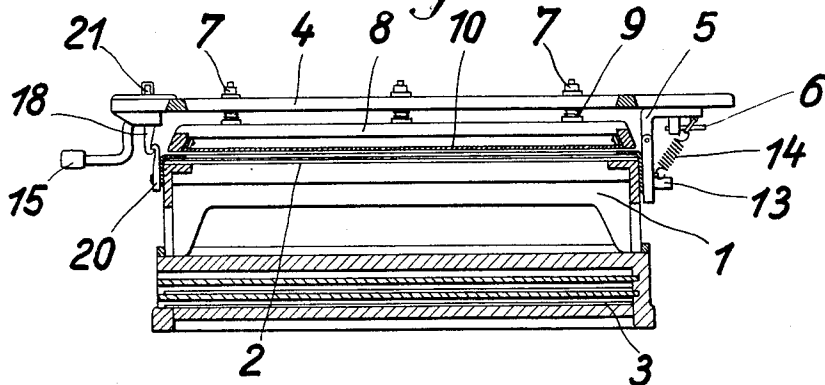


Fig. 2

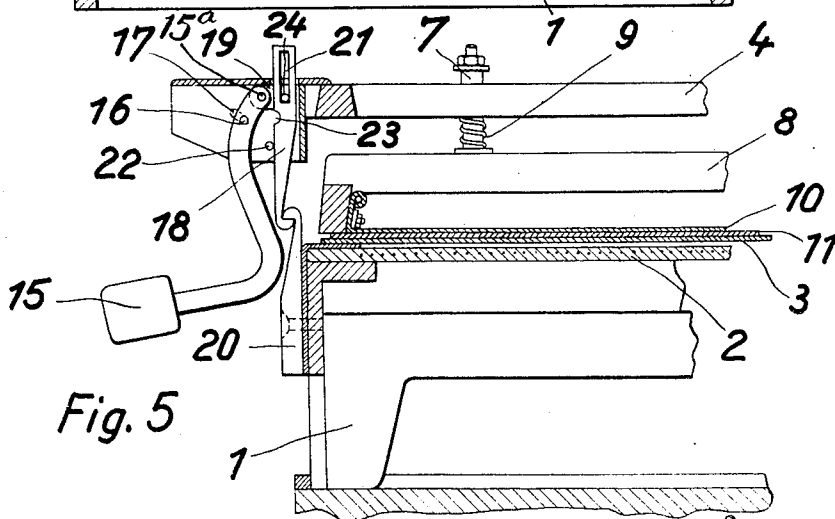
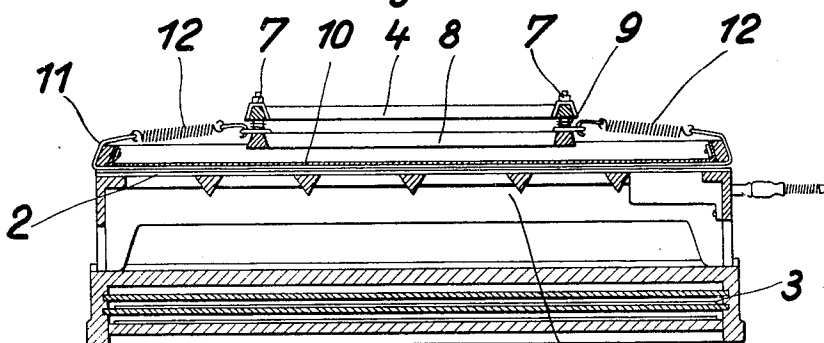


Fig. 5

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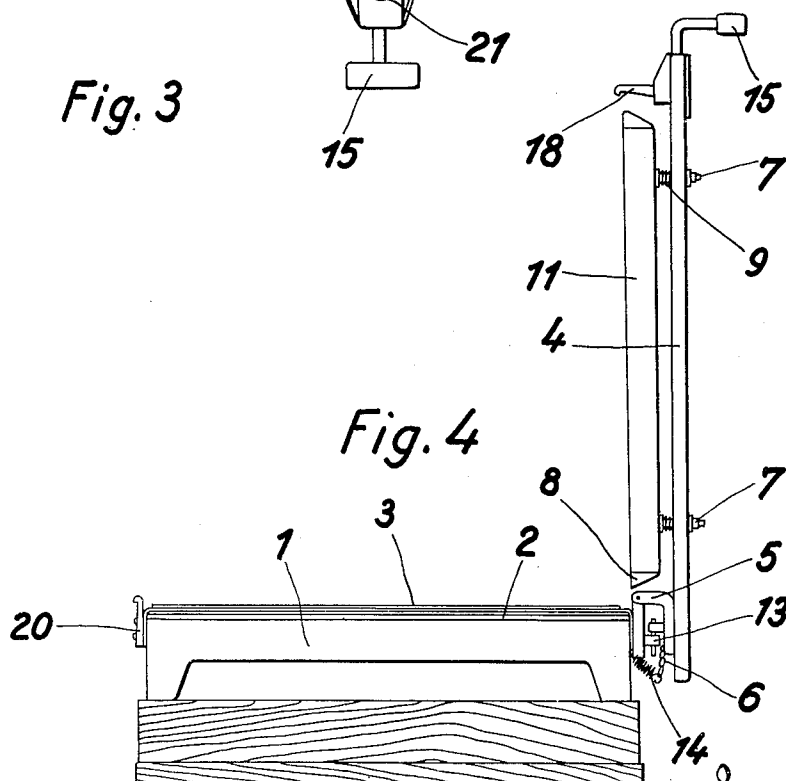
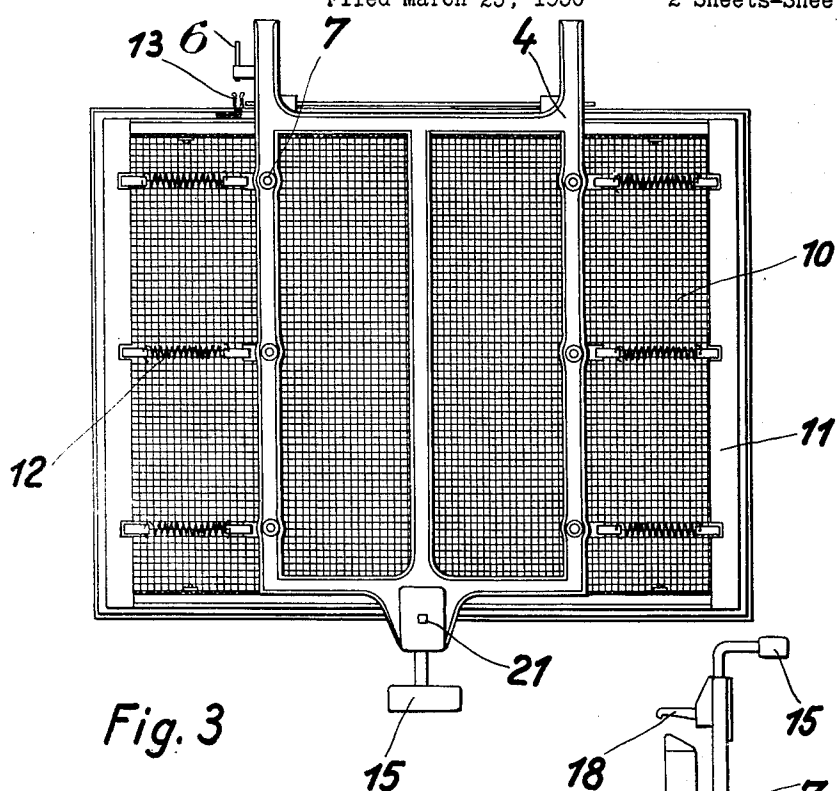
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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HIGH GLOSS DRYING APPARATUS FOR PHOTOGRAPHIC PRINTS

Application filed March 25, 1930, Serial No. 438,863, and in Germany February 13, 1929.

My present invention relates to an apparatus for drying papers, particularly photographs, photo-prints or the like, and for giving them at the same time a high gloss.

5 My new apparatus in the main comprises a flat, easily interchangeable and high-gloss metal plate which is placed immediately on a heating device and against which the wet paper sheets are uniformly pressed by means
10 of a pressure frame. These polished high-gloss plates manufactured at a very cheap price can be easily cleansed and polished, if necessary, outside of the apparatus, and can be covered, while cold, with the wet paper
15 prints which may be previously passed between rubber rollers in order to assure that the copies lie tightly on the plate. Then the plates are re-placed into the drying device.

A further object of my invention relates to
20 an especially practical construction of the frame which is pressed against the entire surface of the polished plate bearing the wet sheets.

The accompanying drawings illustrate by
25 way of example one embodiment of my invention.

Fig. 1 is a cross-section of the high gloss drying device when closed;

Fig. 2 is a longitudinal section in the same
30 position;

Fig. 3 is a plan;

Fig. 4 is a side view of the device when
open;

Fig. 5 is a vertical section of the tensioning
35 lock on a large scale.

In the main body 1 of the apparatus a heating element 2 is fitted. On the latter rests a high-gloss plate 3 (Fig. 5) which is to receive the wet paper copies. The lower part
40 of the body 1 is adapted to contain several plates 3 (Figs. 1 and 2). The high-gloss metal plates are advantageously located in compartments which can be drawn out. The frame 4 is connected with the device by
45 hinges 5. Screw bolts 7 connecting the frames 4 and 8 pass slidably through holes on the frame 4 allowing a small relative movement between the frames against the action of interposed springs 9. A grating 10 is
50 fitted in frame 8 so that it can be stretched

over the side edges of the frame which taper inwardly. Over the grating 10 a soft cloth 11 is stretched by springs 12 connected to the frame 8. At a point projecting beyond the part where the frame 4 is hinged, a pin 6 is
55 fastened which, when the frame is open, enters a locking device 13. The end of the frame is movably connected with the body 1 of the drying device by a spring 14, which prevents the frame from falling down. A
60 device locking the frames 4 and 8 is provided at the side opposite the hinge 5. This locking device consists of a handle 15 to which is secured a pin 16 adapted to slide in oblique slots 17 in the frame 4. The handle 15 is
65 also connected with the latch 18 by a pin 15a and arm or lug 19 rigidly with the latch. The movement of the latch 18 is limited by a stop pin 22. The stop pin 22 and a notch 23 serve
70 at the same time as a stop for the latch 18 and the handle 15 when disengaged. A hook 20, fastened to the body 1 of the device, engages with the latch 18 when the frame is closed. The latch 18 is guided by engagement of a pin 24 on the frame 4 with a slot
75 21 in the latch and by the edge of the latch engaging with a pin 22 on the same frame. The outward movement of the latch is prevented by the pin 22 except in the lowest position of the latch, when for the purpose of
80 opening the apparatus the pin engages in a notch 23 of the latch, which can then be disengaged from the hook 22 and allows the handle 15 to be raised into a position in which it is held by the engagement of the latch with
85 the said pin.

The device works as follows:—The wet paper sheets are placed on a cold plate 3. In order to ensure that the sheets are pressed closely onto the plate they are squeezed in
90 known manner by rubber rollers. As the two frames 4 and 8 are now maintained in the open position by the locking device 13, it is easy to insert the plate 3 with the wet paper prints placed thereon into the drying
95 device, whereupon the frames are closed. When the latch 18 engages the hook 20, the frame 8 presses slightly on the wet prints. To increase this pressure the lever 15 is depressed and the pin 16 slides downwards in
100

the slots 17, the short end of the lever 15 is raised and by its connections 15a and 19 raises the latch 18, disengaging its notch 23 from the pin 22, thus permitting the hooked end of the latch 18 to press upwardly against the hook 20 on the body 1 of the apparatus. As the lever 15 is pressed further down, the frame 4 is uniformly pressed against the heating element 2. The springs 9 communicate this pressure uniformly to the frame 8 and consequently to the plate 3.

To open the device, the frame 4 is released by lifting the lever 15, the latch 18 being removed from the hook 20 by the pin 16 sliding in the slots 17 and the notch 23 allowing the latch to rock outward. The drying device can be opened or closed by a single manipulation.

What I claim is:—

1. A high-gloss drying apparatus for papers comprising in operative combination a casing, a heating device secured to the casing, a frame having a supporting portion, a pressing portion, and means connecting said portions for relative movement and resiliently tending to separate said portions, an exchangeable flat polished drying plate disposed between said pressing portion and said heating device and means pivotally connecting said supporting portion to said casing for resiliently pressing the paper to be dried against said drying plate, and said drying plate against said heating device, the portion of said frame adjacent said plate having a surface permeable to gas.

2. A high-gloss drying apparatus for papers comprising in operative combination a casing, a heating device secured to the casing, exchangeable flat polished drying plates to be laid directly on the heating device, a frame consisting of two parts connected with each other, the lower part of the frame having a surface permeable to gas, the upper part being hinged to the casing so that the lower part of the frame contacts the drying plate in closed relation and a locking device connected with the upper part of the frame for holding the frame in open position.

3. A high-gloss drying apparatus for papers comprising in operative combination a casing, a heating device secured to the casing, exchangeable flat polished drying plates to be laid directly on the heating device, a frame consisting of two parts connected with each other, the lower part of the frame having a surface permeable to gas, the upper part being hinged to the casing so that the lower part of the frame contacts the drying plate in closed relation, slots in the upper part of the frame, a hand-operated lever suspended in the upper part of the frame and bearing a pin guided in said slots, a latch slidable in the upper part of the frame, an arm rigidly connected with said latch, said arm being connected with said lever and transmitting the

motion of the latter upon said latch, and, secured to the casing, a hook engaging the said latch in the closed position.

4. A high-gloss drying apparatus for papers comprising in operative combination a casing, a heating device secured to the casing, exchangeable flat polished drying plates to be laid directly on the heating device, a frame consisting of two parts connected with each other, the lower part of the frame having a surface permeable to gas, the upper part being hinged to the casing so that the lower part of the frame contacts the drying plate in closed relation, and a locking device connected with the upper part of the frame for holding the frame in open position, and a spring attached with one end to a part of the upper frame projecting beyond its hinge, and the other end to the casing.

5. An apparatus according to claim 3, the latch being provided with a notch and the upper part of the frame being provided with a pin engaging with the said pin in the lower end position of the latch.

6. An apparatus according to claim 3, in which, in a raised position of the hand-operated lever, the latch is released from the hook.

In testimony whereof, I affix my signature.

STEFAN KAMINSKI.