

No. 787,542.

PATENTED APR. 18, 1905.

M. RUDOMETOFF.
WIPER FOR COPPER PLATE PRINTING MACHINES.
APPLICATION FILED FEB. 5, 1904.

Fig. 2.

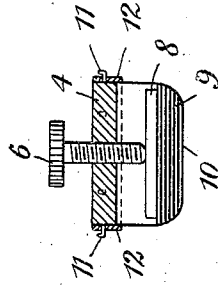
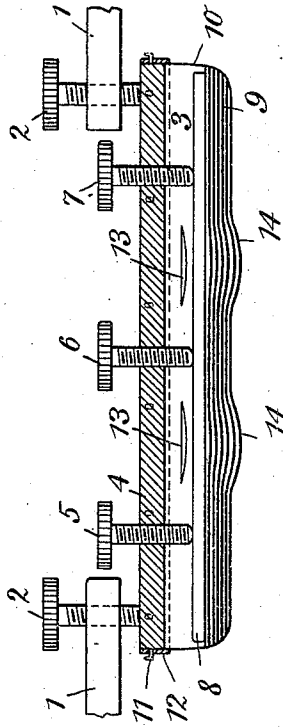


Fig. 1.



WITNESSES

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MICHAEL RUDOMETOFF, OF GOTTSCHINA, RUSSIA.

WIPER FOR COPPER-PLATE-PRINTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 787,542, dated April 18, 1905.

Application filed February 5, 1904. Serial No. 192,173.

To all whom it may concern:

Be it known that I, MICHAEL RUDOMETOFF, a subject of the Emperor of Russia, residing at Gottschina, near St. Petersburg, in the Empire of Russia, have invented a new and useful Improved Wiper for Copper-Plate-Printing Machines, of which the following is a specification.

It is a well-known fact that the prints produced by copper-plate-printing machines cannot be compared, as far as artistic effect is concerned, with the impressions produced by hand-presses for copper-plate printing, the reason being that in the case of hand-presses the local toning produced at various places by the palm of the hand with the most various gradations, with, if desired, simultaneous complete avoidance of toning at other places, could not be obtained in the case of copper-plate-printing machines in consequence of the only simple adjustability of the wipers. These wipers used in the latter kind of machines, which should imitate the action of the palm of the hand of the copper-press printer as far as the toning is concerned, can only produce prints with full toning or no toning at all, but cannot effect a gradation in the toning.

The present invention relates to a wiper for copper-plate-printing machines which is adjustable both as a whole and also in its separate parts with regard to its action on the printing-plate, so that either fully-toned prints or prints not toned at all can be produced, as has already been the case, and also, moreover, prints which are in parts toned and are in parts not toned or possess different degrees of toning, so that the prints produced with such wipers on copper-plate-printing machines become exactly of the same value as the prints produced with hand-presses.

The form of a wiper according to the present invention is represented in the drawings, in which—

Figure 1 is a longitudinal section through the wiper, and Fig. 2 is a transverse section through the same.

1 is a part of the frame of a copper-plate-printing machine on which, by means of the screws 2, the wiper 3 can be adjusted in a well-known manner. This adjustability of the

wiper, which hitherto was the only possible one, caused the whole of the print to possess either a uniform toning or not any toning at all. A gradation in the toning or the simultaneous presence of toned and untoned places could not be obtained by the means for adjustment hitherto known. According to the present invention in order to avoid this fault a number of screws 5 6 7 are provided in the plate or backing 4 of the wiper, said screws pressing with their under ends on a thin metal or wooden plate 8. Under this plate 8 there lie a number of strips of cloth or padding 9, which are surrounded with a wiper fabric 10, which may suitably consist of shirting. For fastening this fabric 10 hooks 11 are arranged on the side surfaces of the plate 4, on which the cover 10 is hooked and secured by steel plates 12. As is readily understood, a wiper formed in this manner can be adjusted not only as a whole by means of the screws 2, but also in its separate parts by means of the screws 5, 6, and 7, so that the elasticity corresponding to the palm of the hand of the copper-plate printer is obtained. This wiper is thus provided with adjustable means for stretching the operative surface at different parts to different extents. It is essential for the action that the threads of the fabric of the cover 10 lie diagonally with regard to the longitudinal axis of the wiper, as in this case alone the fabric possesses sufficient extensibility. The effect of the screws 5 6 7 can be further increased by providing the tightly-stretched cover with incisions in the sides at those places where a thorough and yet delicate wiping of the engraved plate is to take place. In consequence of the tension to which the cover is subjected bulging parts or pockets 14 will arise on the under side of the wiper, which are extraordinarily well adapted to imitate the action of the palm of the hand. The operative surface of the wiper is thus stretched to various extents, so that after wiping the inked plate gradations in toning can be obtained.

In order to facilitate the action of this wiper, it is useful to use, not, as formerly generally customary, a uniformly consistent or uniformly fatty ink, but to use, according to

the toning, more or less consistent or more or less fatty inks. By using for places which require no toning inks containing less fat or no fat at all or more consistent inks one can
 5 completely remove the ink with great ease by means of the above-described wiper, which wipes these places suitably, while by employ-
 10 ing more fatty or less consistent inks for places which require toning at the same time as that in which the less fatty ink is removed by the wiper from the untuned places this has not yet been completely attained at the
 15 places requiring toning, so that, on printing, the desired toning with the requisite gradation can be obtained. The transfer of such more or less fatty or more or less consistent inks takes place by means of the arrangement of collecting-blocks known in polychrome
 20 printing, such as that proposed by Orloff and Rudometoff.

What I claim is —

1. A wiper for copper-plate-printing machines, consisting of the combination of a backing, padding supported therefrom, a
 25 wiper fabric stretched over said padding, adjustable means for stretching the operative surface of the fabric at different parts to different extents, threads in said wiper fabric running diagonally with regard to the longi-
 30 tudinal axis of the wiper, and means for adjusting the wiper as a whole on a copper-plate-printing machine. .

2. A wiper for copper-plate-printing machines, consisting, in combination, of a back-
 35 ing, padding supported therefrom, a wiper fabric stretched over said padding, adjustable means for stretching the operative surface of the fabric at different parts to different extents, threads in said wiper fabric running
 40 diagonally with regard to the longitudinal axis of the wiper, incisions in the wiper fab-

ric at the sides of the wiper, bulging parts on the under surface of the wiper, and means for adjusting the wiper as a whole on a copper-plate-printing machine.

3. A wiper for copper-plate-printing machines, consisting, in combination of a back-
 ing 4, strips of cloth 9 supported therefrom, a wiper fabric 10 stretched over said strips of cloth and supporting the same, a plate 8
 5 resting on said strips, screws 5, 6, 7, in the plate 4, their ends being adapted to press upon plate 8, threads in said wiper fabric running diagonally with regard to the longi-
 10 tudinal axis of the wiper, incisions 13 in the wiper fabric at the sides of the wiper, bulging parts 14 on the under surface of the wiper, and means for adjusting the wiper as a whole
 15 on a copper-plate-printing machine.

4. A wiper for copper-plate-printing machines, consisting, in combination, of a back-
 ing 4, strips of cloth 9 supported therefrom, a wiper fabric 10 stretched over and support-
 20 ing said strips of cloth, hooks 11 on the plate 4, plates 12, for securing said fabric on said hooks, a plate 8 resting on said strips, screws
 25 5, 6, 7 in the plate 4, adapted to press upon and adjust said plate 8, threads in said wiper fabric running diagonally with regard to the longitudinal axis of the wiper, incisions 13 in
 30 the wiper fabric at the sides of the wiper, bulging parts 14 on the under surface of the same, and screws 2 for adjusting the wiper as a whole on a copper-plate-printing machine.

In testimony that I claim the foregoing as
 35 my invention I have signed my name in presence of two subscribing witnesses.

MICHAEL RUDOMETOFF.

Witnesses:

H. A. LOVIAGUIRE,
 ANDREI MOROGOFF.