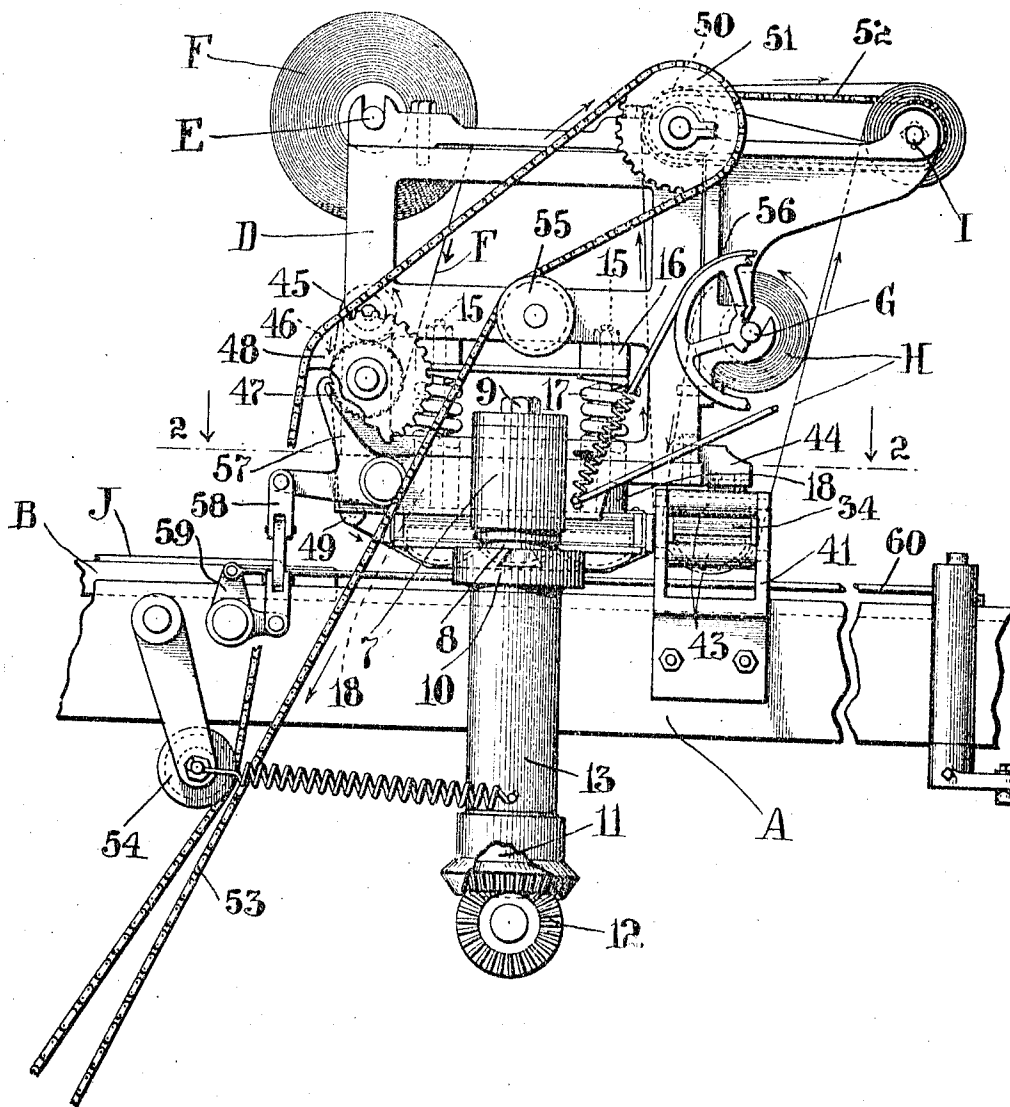


1,026,935.

C. A. STURTEVANT.
PRINTING PRESS.
APPLICATION FILED OCT. 19, 1909.

Patented May 21, 1912.
3 SHEETS—SHEET 1.

Fig. 1.



Attest:
P. V. Menning

Charles A. Sturtevant Inventor:
by *Frank J. Wentworth*
his Atty.

1,026,935.

Patented May 21, 1912.

3 SHEETS-SHEET 2.

Fig. 2.

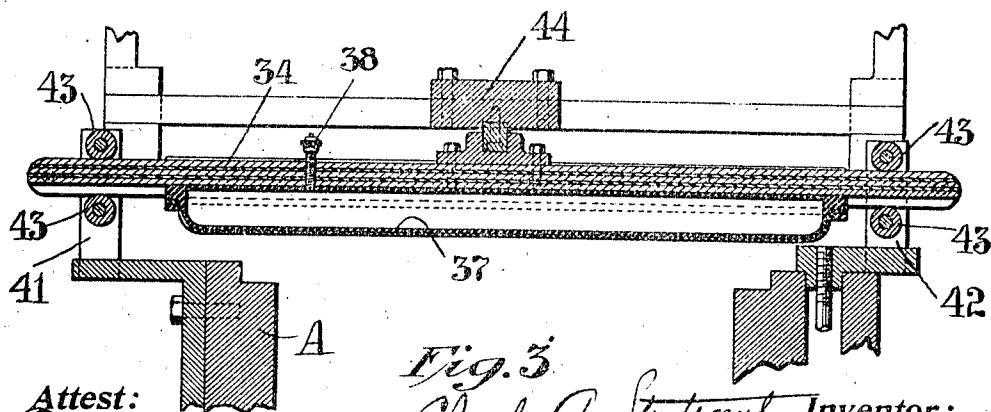
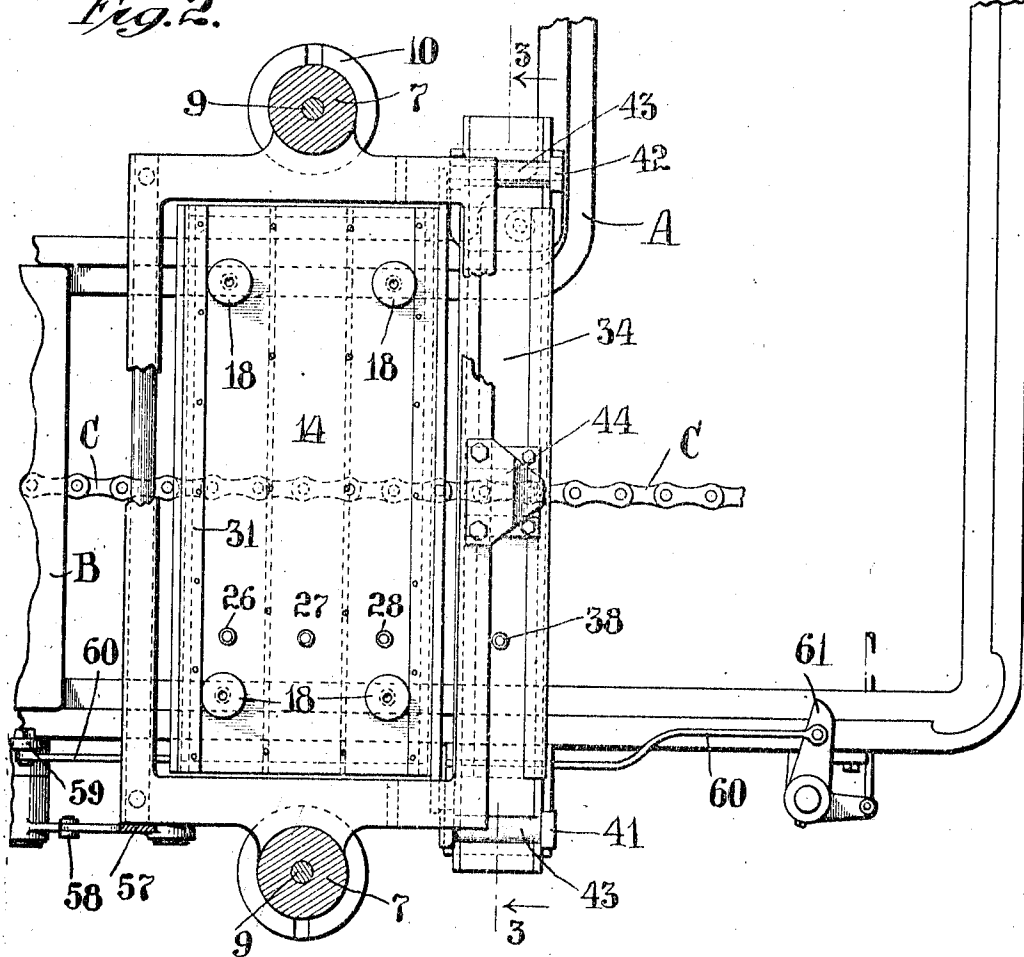


Fig. 3.

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3 SHEETS—SHEET 3.

Fig. 4.

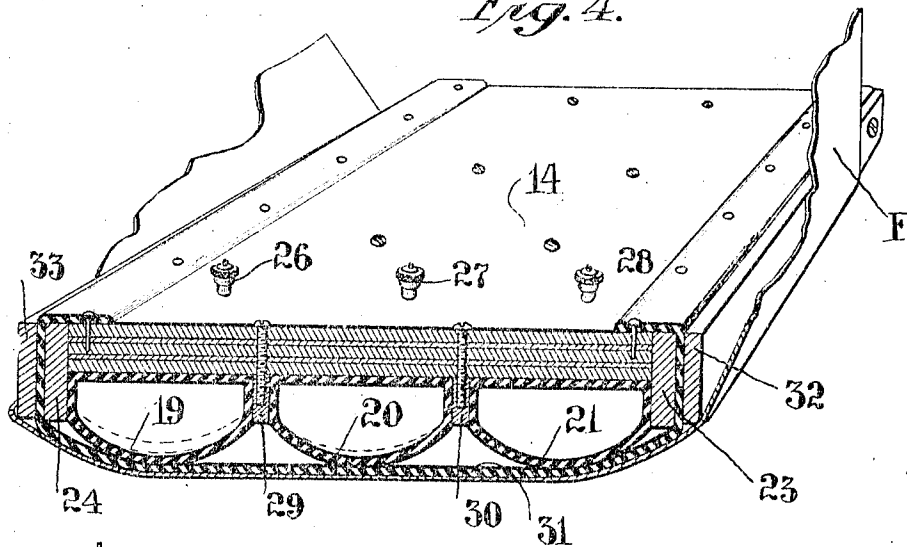


Fig. 5.

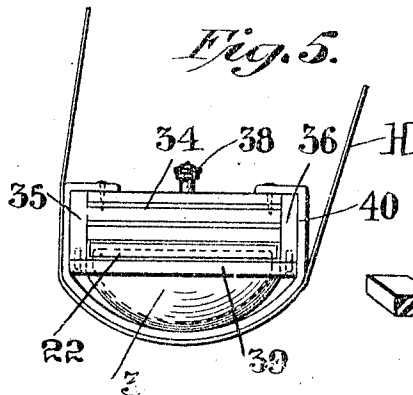
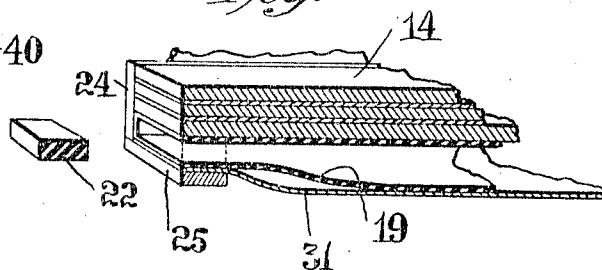


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES A. STURTEVANT, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO AMERICAN BANK NOTE COMPANY, A CORPORATION OF NEW YORK.

PRINTING-PRESS.

1,026,935.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed October 19, 1909. Serial No. 523,496.

To all whom it may concern:

Be it known that I, CHARLES A. STURTEVANT, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification, reference being had therein to the accompanying drawings, which form a part thereof.

My invention relates to printing presses, and more particularly to the wiping and polishing mechanism for under-surface or engraving printing presses.

In flat bed engraving printing presses, the machines are so constructed as to afford an interval wherein the plate is accessible to the pressman, just prior to the taking of the imprint in order that the plate may be carefully inspected by the pressman and receive a final hand wiping whenever necessary. This arrangement results from the frequent failure of the wiping mechanism to remove all of the surface ink from the plate, which ink, if the plate were permitted to pass to the D-roll, would produce a mottled imprint. This necessity results in frequent stoppage of the press to effect this final hand wiping, with a consequent loss of capacity in the press. In this type of press, the wiping mechanism consists of a wiping cloth, a portion of which is maintained in a condition of partial saturation with ink, in order, by a process known as "packing", to retain sufficient ink in the cuts to produce a perfect imprint, leaving a residuum of superficial ink upon the plate which must be removed by the polishing cloths. To secure the thorough wiping of the plate, it is necessary to bring both the wiping and polishing cloths into intimate contact therewith, and to force them into this contact under considerable pressure to secure high efficiency. With the form of wiping and polishing mechanism now commonly used in presses, the requisite pressure cannot be developed without a resultant rapid wear upon the plates which makes it practically impossible to develop the desired amount of pressure.

The main object of the invention is to provide a wiping and polishing mechanism for under-surface or engraving printing presses which will have sufficient elasticity to adapt itself to irregularities in a plate,

thus permitting the wiping cloths to be applied to the plates with a pressure sufficient to insure the thorough wiping thereof while avoiding wear upon the plates at any one point.

A further object is to provide a wiping and polishing mechanism for under-surface or engraving presses wherein the resiliency of the platen over which the wiping or polishing cloth passes, may be adjusted to regulate the pressure exerted upon a plate therethrough, without materially affecting the intimate contact between the wiping cloth and said plate.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses wherein, if desired, the platen may be so adjusted as to gradually increase the pressure exerted upon the plate, with the traverse thereof relative to the wiping cloth, to cause the fresh portion of the cloth to remove only that portion of the ink necessary to leave surface ink upon the plate in sufficient quantity to insure the "packing" of the intaglio lines by the soiled portion of the cloth and completing the wiping with that portion of the cloth which has been used for wiping purposes the greatest length of time; and thus have its absorptive properties so exhausted as to insure the proper "packing" of said lines.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses wherein, if desired, the height of the platen for the wiping cloth may be so regulated as to cause the cloth contacting with a plate to become soiled to a greater extent proportionate to the position of said cloth in the plane of movement, and in the direction of traverse, of the plate being wiped.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses wherein the wiping cloth and polishing cloth will have such movement as to prevent the streaking of the plate due to any substantial movement of either of these cloths co-incidental with the movement of the plate while in engagement therewith.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses, wherein mechanically operated wiping and polishing cloths will remove ink from the surface of

the plates and polish said plate in a manner to make a hand polishing thereof unnecessary to avoid an imperfect imprint therefrom, thus increasing the capacity of a press.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses wherein the wiping cloth and the polishing cloth may be simultaneously driven, with a different movement however, so as to avoid the streaking of the plate through co-incidence in the movement of these two cloths.

A still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses consisting of a wiping cloth support and a polishing cloth support, one of which has a rotary movement, and the other of which a direct reciprocating movement, and both of which are driven from the same source of power so as to insure a synchronous operation of these wipers. And a still further object is to provide a wiping and polishing mechanism for under-surface or engraving presses which may be quickly adjusted to vary the pressure exerted thereby to avoid wear both upon the plate and upon the platen over which the cloths pass.

The invention consists in the novel features of construction and combination of parts hereinafter set forth and described, and more particularly pointed out in the claims hereto appended.

Referring to the drawings:—Figure 1 is a side elevation of my wiping and polishing mechanism applied to an ordinary flat bed press, a portion only of the press being shown in said view; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 2; Fig. 4 is a vertical section of the wiping platen and cloth showing the cloth in position thereon; Fig. 5 is an end view of the wiping platen with the wiping cloth shown thereon, and Fig. 6 is a detail view showing the manner of forming the expansible tubes incorporated in the wiping and polishing mechanism.

Like letters refer to like parts throughout the several views.

In the embodiment of my invention, shown in the accompanying drawings, I have shown at A, the ways upon which the flat plate bed B moves, the sprocket chain C being the means through which the plate bed is driven. In that type of press a portion of which is illustrated in the drawings, the ways A extend about a rectangle, the sides of which have thereon respectively the inking mechanism, the wiping and polishing mechanism, a clear field to permit the operator to inspect the plate and give a final wipe thereto, and lastly the D-roll and other imprint mechanism.

In the accompanying drawings, I have

shown only that portion of the press incidental to the wiping and polishing of the plate, and a short run on the side thereof beyond this mechanism.

Mounted above the ways A, is a frame D supporting the reel E for the wiping cloth F; the reel G for the polishing cloth H; the rewinding reel I for both said cloths, the wiping and polishing platen mechanisms to be more fully described hereinafter, and the various guides and pulleys incidental to the feeding of said cloths about said platens. The frame D is mounted above the ways A by means of collars 7 upon opposite sides thereof, having a vertical opening there- through respectively by means of which collars the entire frame has a rotary movement upon a horizontal plane imparted thereto. Passing through these collars, and secured to a disk 8 on each side of the machine are bolts 9. One disk 8 is driven by means of an eccentric connection with a disk 10 mounted upon a vertical shaft 11 driven by means of the intermeshing gears 12, the other disk 8 being an idler and serving merely as a guide.

13 is a bearing for the vertical shaft 11.

The amount of eccentricity of the connection between the disks 8 and 10 is not great, it being undesirable to have the wiper cloth and the disk have any substantially simultaneous movement in the same direction, as this to a certain extent would destroy uniformity in the action of the wiper cloth and might possibly lead to streaking of the plate.

Mounted in the lower portion of the frame D is the platen over which the wiper cloth passes, which platen consists of a rigid backing 14 preferably consisting of laminated wood (to secure strength and lightness) and a resilient facing adapted to force the wiper cloth F into engagement with the plate, indicated at J in Fig. 1. The backing 14 is supported from the frame D by means of the guide bolts 15, secured to said plates and mounted in vertical openings in cross bars 16 carried by said frame. Encircling these bolts are helical springs 17 acting upon seats formed by said cross bars 16 and blocks 18 carried by said backing 14. The function of the springs 17 is to normally project the platen downwardly to the full extent to insure the intimate contact of the wiper cloth with the desired degree of pressure, the rods 15 being capable of vertical movement with the platen against the tension of this spring to permit the platen to adjust itself to irregularities in a plate, or in different plates, four plates ordinarily being used upon the type of press shown in the drawings. These springs constitute a flexible mounting for the platen whereby it is adapted to have vertical reciprocation in its entirety, and are so grouped about said

platen as to secure a uniform pressure throughout same. This construction is old and well known in this art, my invention relating more particularly to means supplemental thereto for regulating the pressure exerted by said springs, and equalizing the pressure extended throughout the entire plate area.

Mounted on the under side of the backing 14, are a plurality of independently expandible members 19, 20, and 21, having a semi-circular cross-section, such members being preferably three in number to secure a desirable area of contact surface of the wiper, said members extending from side to side of the backing 14 and transversely of the plane of movement of the plate J, in order to secure a continuous bearing point or points along the entire plane. Each of these members is similar in its construction to the others, consisting of a straight piece of, preferably pure rubber, tubing; (or if preferred reinforced rubber may be used, although pure rubber is preferable) the ends thereof being closed upon and sealed by a plug 22 (see Fig. 6), the ends of the tube being clamped upon said plugs and said plugs being cemented or otherwise secured to said tube. When so sealed, the tubes form straight airtight cells. Pendant from the back 14 are flanges 23, 24 to which are secured, by means of screws, cleats 25, bearing upon the ends of the tubes and holding them in position relative to the back 14 and at the same time clamping these ends so tightly as to prevent the escape of air therefrom. Each of the tubes 19, 20 and 21 is provided with an ordinary inflating valve 26, 27, 28, such as is commonly used on bicycle or automobile tires, the valve stems of which pass through the back 14 with the valves and their caps exposed in order to readily admit of the inflation or deflation of the said tubes or any of them. A plurality of such tubes is employed, arranged in the manner desired, in order to permit the tubes to be inflated in different degrees for the purpose of varying the pressure exerted by the wiper cloth at different points of engagement between the said cloth and the plate. Pendant parting strips 29 and 30 between the tubes 19 and 20, and 20 and 21 respectively are provided to maintain said tubes in the proper relative position and confine the upper portion thereof within an area which will cause their inflation to project the lower face thereof downwardly and permit the unequal inflation of the tubes to vary the elevation of the wiper cloth.

Extended from one side of the back 14 passing under, inclosing and drawn tightly over the lower face of the tubes 19, 20 and 21 and secured to the opposite edge of the back 14 is a facing 31 of reinforced rubber, leather or other similar material, possessing

but little elasticity while resisting the wear of the cloth passing thereover. Beyond the side flanges 23 and 24 are clamping plates 32 and 33 to aid in retaining the facing 31 in position on the platen and relieving the edges thereof from undue wear from said cloth. The facing 31 forms a continuous bearing face upon the platen for the wiper cloth, as it spans the gaps between the lower face of the tube 19, 20 and 21, and is tautened through the expansion of these tubes.

Mounted adjacent to the wiping mechanism is a polishing mechanism, the platen of which consists of a backing 34 preferably constructed in the same manner as the backing 14 which backing carries side flanges 35, 36, between which is seated an expandible member 37, constructed in the same manner as the members 19, 20 and 21 and having a valve 38 whereby the tube comprising the member 37 may be inflated or deflated to vary the level to regulate the pressure of the polishing cloth upon the plate. The ends of the member 37 are clamped upon the back 34 by means of the end cleats 39 (see Fig. 5). Secured to opposite sides of the top of the backing 34 and passing under and drawn taut upon the member 37 is a facing 40 which may be of the same material as the facing 31. The ends of the back 34 are extended beyond the member 37 and mounted in fixed bearings in a manner to limit the movement of the said polishing platen to a direct reciprocation transversely of the line of traverse of the bed plate B. These bearings consist of brackets 41 and 42 secured to the frame of the press, each carrying a pair of oppositely disposed parallel roller bearings 43 between which respectively are mounted the projecting ends of the back 34. This back is of a width to engage the sides of the brackets 41 and 42 thus preventing any movement of the polishing platen coincident with the movement of the plate J.

To insure the reciprocation of the polishing platen 34 synchronously with, and yet in a manner dissimilar to, that of the wiping platen, I drive the former from the frame in which the latter is mounted, by means of a tongue and slot connection 44 affording that lost motion necessary to permit the rotary movement of the wiper platen. While the brackets 41 are fixed, and the frame D carrying one member of the tongue and slot connection 44 is movable, nevertheless, the transverse movement of this frame and of the member 37 will be the same, any longitudinal movement of the frame relative to the brackets 41 and 42 being insufficient to disturb the relation of the polishing cloth 11 to said member. The tongue and slot connection must be so constructed as to leave a clear field between the wiping and the polishing platens for the passage of the polishing cloth. The feeding mechanism for the

said cloths shown in the drawings is old and well known in this art, requiring merely that adjustment necessary to reduce the feeding movement of the cloths to effect that economy due to the saving effected by the more thorough wiping of the plates due to the regulation of the pressure exerted by the wiper cloth, and the longer runs with one wiping cloth which result from this saving. This mechanism consists of feeding rollers 45 and 46 between which the wiper cloth F passes. Secured to one of these rollers, as 46, is a ratchet wheel 47 and mounted upon the shaft of this roller is a sprocket wheel 48 connected with the ratchet 47 by a friction clutch in the usual and well known manner. The wiper cloth F passes about the lower roller; to and about the upper roller 45 from whence it passes about the guide roller 49 to and across the facing 31, upwardly about a guide roller 50, to the rewinding reel I. The roller 50 is driven by means of a friction clutch connection from the sprocket wheel 51, said clutch permitting slippage, in the usual manner, to permit the continuous rotation of the sprocket wheel 51 while allowing that dwell of the wiping and polishing cloths necessary during the wiping and polishing interval. The re-winding reel I is driven from the roller 50 by means of the sprocket and chain mechanism 52. About both the sprocket wheels 48 and 51 is a sprocket chain 53 driven from the driving mechanism of the press, sufficient slack being present in said chain to permit of the movements of the frame D. The automatic take-up mechanism 54 is provided to take up any slack in said chain.

55 is an ordinary guide roller.

The reel G is disposed above the polishing platen, and the previously dampened wiping cloth H is fed directly from this reel, back of the tongue and slot connection 44 to and under the facing 40 and then direct to the rewinding reel I. To prevent the over-running of the reel G, I provide a brake or retard mechanism 56 of any desired construction.

Engaging the ratchet wheel 47 is a pawl 57 adapted to normally engage the said ratchet wheel to overcome the friction clutch actuated by the sprocket wheel 48 and prevent the feeding of the wiper cloth. This pawl is actuated by the chain 58, the bell crank lever 59, the rod 60 and the spring pressed bell crank lever 61 one arm of which projects into the path of the bed B. The chain connection 58 forms a universal joint whereby the frame D may have movement in any direction relative to the means actuating said pawl.

The operation of the herein described device is substantially as follows:—The wiping platen with its resilient or elastic facing

having been assembled in the manner above described, it is apparent that the resiliency of the expansible members 19, 20, and 21 may be regulated by their inflation or deflation by means of their respective valves 26, 27, 28, and that such valves may be used as a medium varying the level of the platen, or of any portion thereof. Inasmuch as any variance desired would be very slight, such may be secured without forming slack in the facing 31. The said platen may thus be readily adjusted to any plate so as to secure only that pressure requisite to accomplish a thorough wiping thereof, thus eliminating excessive wear upon the plate and upon the platen itself. In the first stages of the wiping of the plate it is undesirable with some plates to have the maximum pressure exerted by the wiping cloth; and the plurality or sequence of expansible members covered by a continuous facing permits the graduation of the plane of the entire wiper or the slight pitching of the facing 31, to gradually increase the pressure exerted by the wiper cloth upon the plate with the passage of the plate under said wiping platen. This variable pressure also prevents the rapid fouling of that portion of the wiper cloth first to engage the plate, thus having the last portion of said cloth to engage the plate, filled with ink to a greater extent than any other portion of the cloth, which not only insures a more thorough packing of the intaglio lines, but permits the wiper cloth to be fed more slowly than would otherwise be required.

While the carriage D operates continuously, the pawl and ratchet mechanism 47 and 57 prevents the feeding of the cloth until the bed B, by engagement with the arm of the bell crank lever 61 projected in its path, disengages the said pawl from the said ratchet and relieves that resistance overcoming the friction between the sprocket wheels 48 and 51 and the friction clutch connecting said wheels with the rollers 46 and 50 respectively, whereupon the chain drive 53 will feed the cloths F and H across their respective platens and rewind the soiled cloths upon the reel I, the pawl 57 being again forced into engagement with the ratchet wheel 47 immediately upon its disengagement from the said bed plate B. Thus the feeding of the cloths will occur, as in the ordinary engraving press, only after the wiping and polishing of the plates, thus preparing the said mechanisms for the wiping of the next plate.

The elasticity, or flexibility, of the platen due to the expansible tubes 19, 20, and 21 will permit said platen to adjust itself to any plate and eliminate any irregularities in the platen which might result in unequal wear upon the plate. These tubes supplement the springs 17 in securing the desired

yielding pressure of the wiping cloth upon the plates but are designed primarily to secure such flexibility of the platen as will permit it to adapt itself to any plate and at the same time permit the changing of the level of the wiper cloth to increase or diminish the pressure exerted by the platen in its entirety or any portion thereof. The rounded under-surfaces of the members 19, 20 and 21 permit the pitching of the wiper cloths in the manner above described, as by deflating the tubes 19 and 20 to a different extent, a gradually downwardly pitched surface is not only presented to the plate, but the pressure exerted upon the plate is gradually increased owing to the variance in the elasticity of the volume of the air contained in the respective tubes. The parting strips 29 and 30 merely preserve the form and relation of the said tubes.

With the circular movement of the wiper frame D, the tongue and slot connection 44 imparts a direct lateral reciprocation to the polishing platen, the slot affording that lost motion necessary to convert the circular movement to lineal movement in the manner above described. The rollers 43 permit the free movement of this wiper and hold it in engagement, with the requisite pressure, with the plate J. The sides of the brackets 41 and 42 as above stated, prevent any movement of the polishing platen in the same direction as, and simultaneously with, the movement of the plate. The back 34 being thus rigidly held, the elasticity of the polishing cloth is secured solely through the tube member 37, the level of which may be regulated, on parallel planes only however, by the inflation or deflation of this tube.

While the curved surface of the member 37 tends to limit the area of contact between the polishing cloth 11 and plate J, the elasticity of this member permits it, under pressure, to flatten sufficiently to secure a contact area sufficient to thoroughly remove any superficial ink left upon the plate by the wiping cloth F. Actual experience has demonstrated, that after a plate has left the polishing cloth, the upper surface thereof is entirely free from ink, and requires no subsequent hand polishing by the pressman, thus permitting the press to be run continuously and avoid those interruptions incidental to hand polishing of the plate.

The pressure exerted by the platen may be regulated by the air pressure within the tubular member 37, so that, as with the wiping platen, the polishing platen may be readily and quickly adjusted to any plate J upon the plate bed B.

The operation of the cloth feeding mechanism is apparent from the description of this mechanism herein contained, and inasmuch as in its general features, this mechanism is old and well known in the art, a de-

tailed description of its mode of operation will not be entered into.

I have found that ordinary rubber coated canvas and flexible leather, are both suitable for the facings 31 and 40 although in some respects the leather is preferable as affording less resistance to the traverse of the cloths thereover, thus possessing greater durability. The rounded impact surfaces of the said facings 31 and 40 facilitate the engagement of the wiping and polishing cloths with the plate, and furthermore cause the gradual development of the requisite pressure between said wiping and polishing cloths and said plate. The dissimilarity in the movements of the wiping platen and the polishing platen is designed to prevent any possibility of the streaking of the plate or of an irregular fouling of the polishing cloth. The quantity of feeding movement of the cloths when used with a platen such as herein described, is small.

While in actual practice I have found the detailed construction shown in the drawings and herein described produces highly satisfactory results, it is not my intention to limit the invention to such details, it being apparent that such may be modified without departing from the spirit and scope of the invention. While I have shown a specific form of cloth feeding mechanism, such form is non-essential to the invention, it being merely necessary that some suitable device be provided whereby the wiping and polishing cloths may be fed across and in engagement with the facings 31 and 40. In practice, I have used a spring projected back carrying the flexible expansible members for the wiping cloth, and I prefer to use such, although the efficiency of the wiping cloth would not be materially impaired were the back 14 rigidly mounted upon the frame D.

I believe it to be broadly new to provide in a wiping or polishing mechanism for under-surface or engraving printing presses, an expansible resilient platen member, and means affording a medium for regulating the level of the impact surface of the cloth passing over said member, and the pressure exerted by said cloth upon the plate, through said expansible member, and I intend to claim such broadly.

Having described the invention, what I claim as new, and desire to have protected by Letters Patent, is:—

1. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of expansible members carried by said back, individual means through the medium of which the operative plane of said expansible members may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the

plates, absorptive material passing over said expansible members and means imparting a feeding movement to said material.

2. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel airtight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, absorptive material passing over said tubes and means imparting a feeding movement to said material.

3. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel airtight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

4. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel straight sections of air tight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

5. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel straight sections of air tight inflatable and expansible tubes, cleats clamping the ends of said tube sections upon said back, individual valves through the medium of which the operative plane of said tubes may be adjusted, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

6. In a printing press, a wiping and polishing mechanism comprising the combination with a wiping mechanism, consisting of a back, an air tight inflatable and expansible tube carried by said back, a valve through the medium of which the operative plane of said tube may be adjusted, absorptive material passing over said tube, and means imparting a feeding movement to said material, of a polishing mechanism embodying therein a platen comprising a rigid

back, an inflated expansible member carried by said back, the ends of said back extending beyond said member, bearings for said ends limiting said platen to a reciprocatory movement, means actuating said platen, absorptive material passing over said member bearings for said extended ends and means imparting a feeding movement to said material, and means imparting synchronous dissimilar movements to the operative members of said wiping and said polishing mechanism comprising means for imparting a rotary movement to said wiping mechanism, and connections between said wiping mechanism and said polishing mechanism whereby the rotary movement of said wiping mechanism is converted into a reciprocatory movement of said polishing mechanism.

7. In a printing press, a wiping and polishing mechanism comprising the combination with a wiping mechanism, consisting of a back, an air tight inflatable and expansible tube carried by said back, a valve through the medium of which the operative plane of said tube may be adjusted, absorptive material passing over said tube, and means imparting a feeding movement to said material, of a polishing mechanism embodying therein a platen comprising a rigid back, an inflated expansible member carried by said back, the ends of said back extending beyond said member, bearings for said ends limiting said platen to a reciprocatory movement, absorptive material passing over said member, means imparting a circular movement to the back of said wiping mechanism and connections between said wiping mechanism and said polishing mechanism whereby the latter receives a reciprocatory movement from the former.

8. In a printing press, a wiping and polishing mechanism embodying therein a frame, means supporting cloth reels, and a rewinding reel on said frame, a platen mounted in said frame and movable therewith, comprising a back, a plurality of parallel, air tight, inflatable tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be adjusted, a continuous facing drawn taut over said tubes and attached to said back, means feeding the absorptive wiping material from its reel about suitable guides in said frame, under and in engagement with said facing, and upon said rewinding reel, bearings fixedly mounted on the frame of the machine adjacent to and beyond said frame, a polisher back mounted in said bearings and adapted to have reciprocation therein transversely of the direction of movement of a plate, an inflated tube carried by said back, a reinforcing facing upon said tube, means whereby said frame is given a circular movement,

and means whereby said polisher back is synchronously given a reciprocating movement.

9. In a printing press, a wiping and polishing mechanism embodying therein a frame, means supporting cloth reels, and a rewinding reel on said frame, a platen mounted in said frame and movable therewith, comprising a back, a plurality of parallel air tight, inflatable tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be adjusted, a continuous facing drawn taut over said tubes and attached to said back, means feeding the absorptive wiping material from its reel about suitable guides in said frame, under and in engagement with said facing, and upon said rewinding reel, bearings fixedly

20 mounted on the frame of the machine adjacent to and beyond said frame, a polisher back mounted in said bearings and adapted to have reciprocation therein transversely of the direction of movement of a plate, an inflated tube carried by said back, a reinforcing facing upon said tube, a tongue and slot connection between said frame and said polisher back whereby said frame is given a circular movement, and means whereby said polisher back is synchronously given a reciprocating movement. 25 30

In witness whereof, I have hereunto affixed my signature this 13th day of October, 1909, in the presence of two witnesses.

CHARLES A. STURTEVANT.

Witnesses:

P. V. WENING,

P. FRANK SONNEK.