

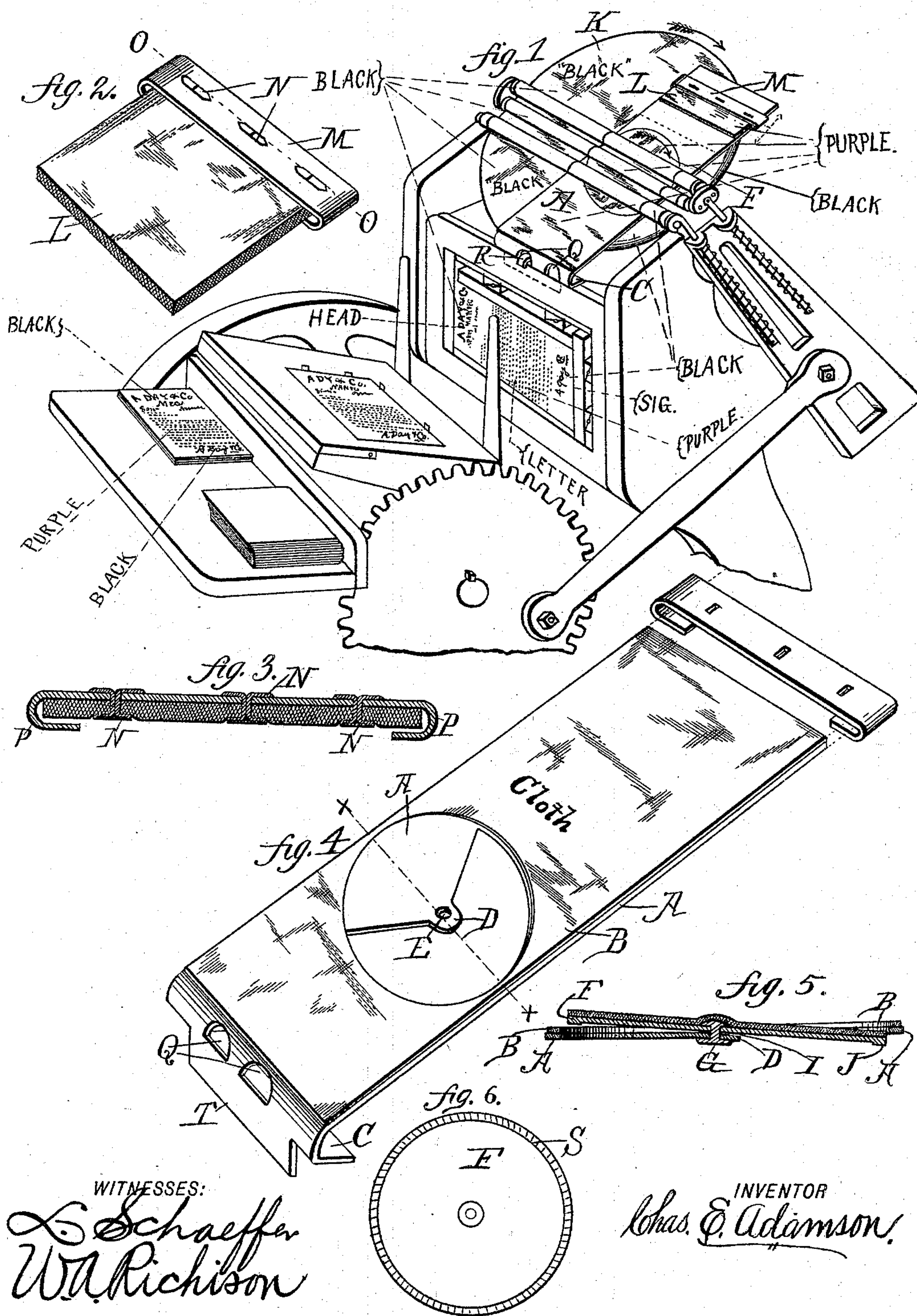
(No Model.)

C. E. ADAMSON.

TWO COLOR ATTACHMENT FOR PRINTING PRESSES.

No. 528,060.

Patented Oct. 23, 1894.



UNITED STATES PATENT OFFICE.

CHARLES ELLSWORTH ADAMSON, OF MUNCIE, INDIANA.

TWO-COLOR ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 528,060, dated October 23, 1894.

Application filed January 8, 1894. Serial No. 496,176. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ELLSWORTH ADAMSON, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Improvement in Two-Color Attachments for Job-Printing Presses, of which the following is a specification.

My invention relates to color printing attachments to be used on what are commonly called job presses, and my device can only be used on such job presses that are constructed with a revolving circular ink disk, especially such presses known as "Gordons," and the objects of my invention are, first, to construct a two-color attachment especially designed for printing imitation type-writer letters, where it is desired to print the heading of the letter in black and the type-writer part in purple, or some other suitable color; second, to construct a cheap and simple color printing device that can be readily attached and detached without altering the construction of the press; and third, to construct a color printing attachment having an ink supplying pad or fountain and a revolving distributing disk, all of which are operated by the action of the press. I attain these objects by the mechanism illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the upper part of a job printing press, showing my attachment as in working position. Fig. 2 is a view of the ink pad or fountain separated from the attachment. Fig. 3 is a cross section of Fig. 2, taken on lines O O. Fig. 4 is a perspective of the main part of my invention with the ink pad and distributing disk removed. Fig. 5 is a cross section of a complete attachment, directly through the center of the revolving disk, as indicated on Fig. 4 by the dotted lines *xx*; and Fig. 6 is a view of the under side of a revolving disk separated from the attachment.

Similar letters refer to similar parts throughout the several views.

The plate A is made of a very thin metal, such as tin or sheet brass. It is covered on its upper side and nearly its entire length with a thin material B, such as rubber cloth, the rubber side placed next to and firmly secured to the metal, and the cloth side placed

up to receive the ink. The lower end of the plate A is curved downward and its two lower corners cut and bent backward forming feet C one of which is shown in Figs. 1 and 4. These feet rest upon the upper edge of the bed of the press when the plate is in position, and the clamp R passes through one of the holes Q all of which prevents the said plate from slipping out of place. The lower end T of the plate A extends downward about one inch from the feet, so it may be clamped between the chase and the bed of the press firmly holding the attachment in its proper position on the ink disk of the press, in which position it is shown in Fig. 1. Near the center of the plate A an opening is cut out in a half-moon shape. Clearly shown in Fig. 4. About one-third of the metal is left in the said opening in a V-shape, extending from one side to the center of the said opening and having a bearing point D and a hole E in which the disk F is pivoted by a pivot G, all as shown in Figs. 4 and 5.

The covering B is cut out over the opening so that the disk F will fit closely to the plate A. A small and very thin washer I is placed on the pivot between the plate F and bearing D to prevent the disk from binding and assisting it to turn freely thereon. The rivet G is soldered firmly to the under side of the arm D, holding the said rivet stationary while the disk will revolve freely on it and the said washer I, thereby preventing the disk and arm from wearing and binding on each other.

The disk F is covered with the rubber cloth just the same as the plate A. It will be seen by Fig. 5 that the said disk stands in a tilted position when the rollers are not upon it, and this is caused by bearing D being slightly turned downward, as shown in said figure. The disk is made to stand in this position so that the under side next to the outer edge of the ink disk will always rest on the said disk K at the point marked J in Fig. 5. In this manner the under side of disk F is made to press on the outer edge of the disk K a sufficient amount to cause the said disk F to revolve with the disk K at each impression of the press, it being understood that each disk turns a certain amount at each impression of the press and that this turning takes place while the press rollers are making their oscillating

movement below the said disks and plate, and while the said rollers are not bearing or touching the said disks. As soon as the press rollers run up on the plate and disks the disk F is pressed down perfectly flat on the plate A, thus allowing the press rollers to touch the press disk K as well as the plate A and disk F. At the same time the rollers, however, will press somewhat heavier on the said plate A and disk F on account of their being between the said rollers and the press disk.

At the upper end of the plate A is placed the ink pad or fountain L, as clearly shown in Fig. 1. This pad L is made of some soft porous cloth and it is attached to a sliding bar M by ordinary paper fasteners N. These fasteners pass through the cloth and up through the slots O in the said bar, and are clinched, all as shown in Figs. 2 and 3. The outer ends P of the bar M turn down under the pad L so as to catch under the edges of the plate A. This holds the said pad to the plate A so that it can be moved up and down on the said plate in regulating the amount of ink fed to the press rollers. When the pad is adjusted to the plate on the press it is moved down so that the upper press roller will touch it when the rollers are at their highest point, and in touching the said pad L the roller receives a small quantity of ink which on its downward movement deposits the said ink on the said plate A and disk F. The revolving of the disk F and the working of the rollers over the said disk and plate A distribute the ink even and regular so that the form directly below the said plate is inked in the same ink and color with which the fountain L is supplied. The press rollers do not move endwise, and the thickness of the plate A is sufficient to prevent the ink on the plate A from touching the ink disk K and therefore the inks on each do not become mixed or blended together. The plate A is made adjustable sidewise on the disk K, by the holes Q in the lower end of the said plate. These holes are cut to suit the location of the chase clamp R, as its position varies in the different makes of presses.

The plate may be placed so as to leave a certain amount of the disk K uncovered over the heading and signature of the form, as shown in Fig. 1, or it may be placed so as to stand flush with one edge of the disk K, or moved directly over the center of the said disk, all of these positions depending upon the kind of job to be run.

In working my attachment on a job press it is best to cover the press disk K with a "disk cover" or in other words a cloth cover over the surface of the iron disk, as the under side of the outer edge of the plate disk F is milled or roughened as indicated at S in Fig. 6, and this rough edge bearing on the cloth surface of the said press disk will cause the disk F to revolve or move at each movement of the press disk, while if the edge S—J

of the disk F touched on the smooth metal surface of the press disk it would have nothing to adhere to, and would therefore not revolve freely.

In using my attachment I proceed as follows: I first wash the press rollers perfectly clean. Then place a disk cover (such as described in an application filed in the United States Patent Office herewith), on the press disk K, and if the letter head is to be printed in black I place some black ink on the covered ink disk K at a place marked "Black" in Fig. 1 (or supply it from an ordinary ink fountain). If the typewriter part of the letter is to be in purple I place some thin purple ink on the pad L and adjust the said pad so that the upper press roller will touch it on its upward movement. I now proceed to run the press a few moments in order to distribute the ink evenly on the plate and press disk. Next I arrange the type form in the chase so that the "typewriter part" comes directly below the plate and the width of the said plate corresponding to the depth of the letter, or in other words a wide plate being used to print a full length letter, and a narrow plate being used to print a short letter. In this way, if it is desired to run a "signature" at the bottom of the typewriter letter, as marked "Sig." in Fig. 1, it can be run in the black ink as the plate is set over from the edge of the disk K allowing a small portion of one end of the rollers to work on the black ink on the disk K, all as indicated by words and fully shown in Fig. 1. In this manner an "imitation typewriter letter" is printed complete, all at one impression, consisting of the "letter heading" printed in black, the "signature" at the bottom in black, and the "typewriter letter" part between the heading and signature, in purple.

It will be understood that the color of ink used on the press or plate may be to suit the customer, and if it is desired to print the signature in the same color as the letter part, the plate A may be set to one side, or so that one edge of it is even with one edge of the disk K and one end of the press rollers. The chase clamp R passing through the holes Q will hold the plate in position when a chase or form is not in press, but when the chase is in place the end T is firmly clamped between the press bed and chase.

My attachments may be made in all sizes, and various kinds of color work may be done by them, but they are more especially designed for the class of work heretofore described.

The cloth covered rubber surface B retains more ink than a metal surface and it is not intended to ever change the color once used on the surface, as it cannot be washed like a smooth metal disk, and the ink used for imitating typewriter printing is very thin and runny, requiring a cloth surface to work it successfully.

Having thus described my invention, I claim the following and desire to secure the same by Letters Patent:

1. A color printing attachment for job printing presses consisting of a thin plate for covering a part of the ink disk, the said plate carrying an ink pad or fountain and a revolving disk, all combined and operated as and for the purpose set forth.

2. A color plate for job printing presses, consisting of a thin plate made to work between the press disk and the press rollers, the said plate provided with a pivoted disk which is made to revolve by the action of the press disk, all constructed so as to be attached and adjusted to a job printing press, as and for the purpose set forth.

3. An ink distributing plate for covering a portion of the circular ink disk of a job press, consisting of a thin metal plate covered with a thin rubber cloth, the said plate provided

with a pivoted circular disk, and an adjustable ink pad or fountain as and for the purpose set forth.

4. In combination with the ink disk of a job printing press, an ink plate for color printing, the said plate having a soft ink surface and a revolving distributing disk pivoted loosely to the said plate and resting on one edge of the surface of the ink disk of the press, whereby the said plate disk is made to revolve, all as and for the purpose set forth.

5. A fountain pad for an ink plate consisting of a soft pad L, having a clamping band M, and fastener for securing the said band and pad together, all in combination with an ink plate as and for the purpose set forth.

CHARLES ELLSWORTH ADAMSON.

Witnesses:

E. J. TOMLINSON,
E. E. DAUGHERTY.