Jan. 5, 1971 B. BAROUGH 3,552,990

CORRECTION MATERIAL HAVING METALLIC ADDITIVE

Filed April 3, 1967

FIG. 1

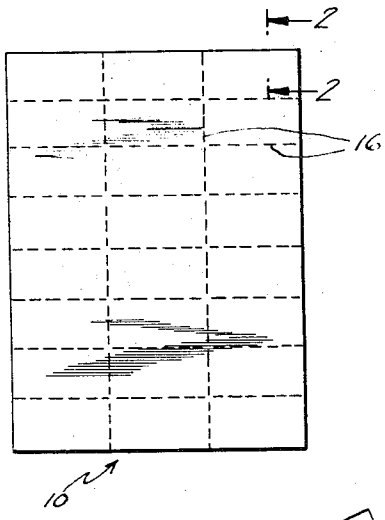


FIG. 3

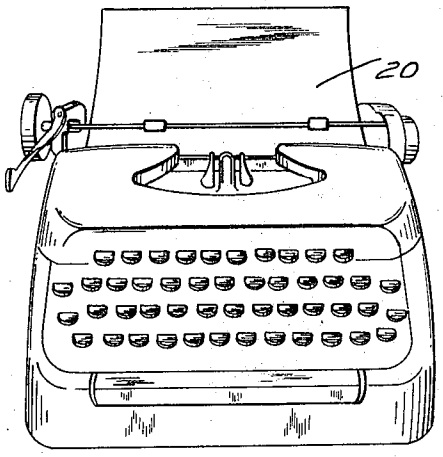


FIG. 4

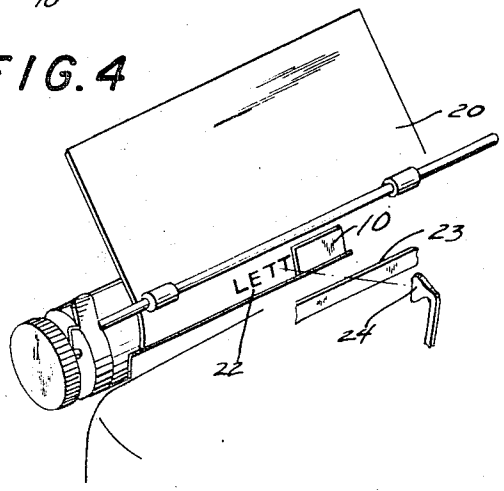


FIG. 2

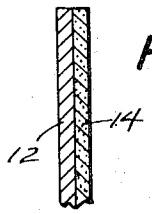


FIG. 5

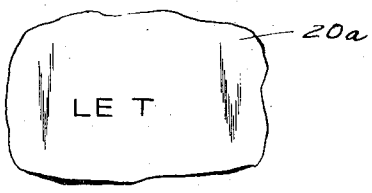
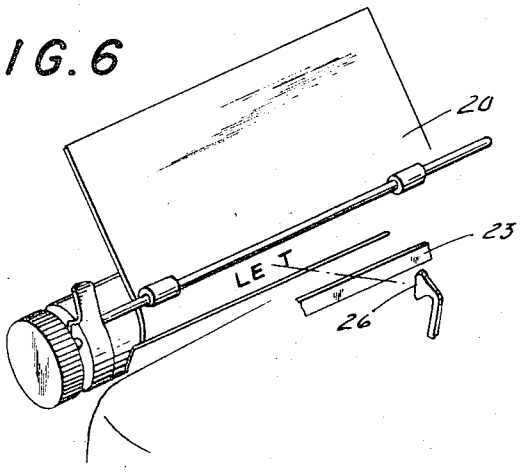


FIG. 6



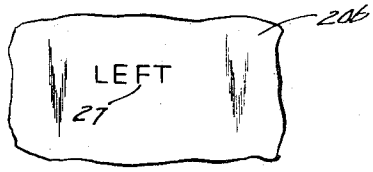


FIG. 7

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CORRECTION MATERIAL HAVING METALLIC ADDITIVE

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U.S. Cl. 117—36.1 1 Claim

ABSTRACT OF THE DISCLOSURE

A correction material for use in masking erroneously typed impressions comprising a sheet of paper having a coating of a pigment containing titanium dioxide and magnesium silicate together with a binder of vinyl chloride-vinyl acetate copolymer. An additive of aluminum gives unexpected results. The pigment and additive are mixed in a solution of methyl-ethyl-ketone and toluene and the binder.

This invention relates to materials for use in correcting typewritten errors.

Ordinarily, a sheet of paper stock having a typewritten error requires complete retyping or extensive and time-consuming corrections which tend to detract from the appearance of the finished paper. It is, therefore, an object of the present invention to provide an improved material for use with all types of manual and electric typewriters which will greatly facilitate the correction of such typewritten errors without removal of the sheet from the typewriter, and without the use of an eraser or the like.

The concept of the present invention is to provide on paper or like material an improved pressure sensitive coating for use as a masking agent for erroneously key-struck impressions.

Another object of the present invention is to provide improved materials for correcting typewritten errors which will completely obliterate such errors and enable corrections to be made in an extremely simple and neat manner.

Still an additional object of the present invention is to provide an improved pressure sensitive coating which on one side of a flexible sheet is approximating the color or tone of the stock being typewritten upon, and which will transfer to such stock a sufficient coating to cover the typewritten error only, thus clearing such area of the stock for the subsequent impression thereupon of the correct copy. One of the difficulties with present masking agents being sold commercially is that the paper on which the chemicals are coated is too flimsy causing difficulty when the paper is being inserted in between the letter guide and the erroneously typed impression. The present invention further overcomes this problem without having to increase the weight of the paper thus affording a new and totally unexpected result by adding a metallic substance such as aluminum, bronze, etc. to the face of the paper. By making the color of this metallic substance silver or bronze the process of making use of every inch of the masking paper is facilitated. Since the said metallic substance is silver or bronze the back typewritten letters can easily be seen and one can avoid striking over a previously struck area. This saves time and money and makes for neater corrections.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this correction material, a preferred embodiment of which is shown in the accompanying drawing, by way of example only, wherein:

FIG. 1 is a plan view of an article of manufacture made in accordance with the present invention;

FIG. 2 is an enlarged vertical sectional view taken along the plane of line 2—2 in FIG. 1;

FIG. 3 is a front perspective view of a typewriter having a copy sheet mounted therein with a typewritten error impression formed thereon to be corrected in accordance with the concepts of the present invention;

FIG. 4 is an enlarged fragmentary exploded perspective view illustrating the manner in which the article of manufacture made in accordance with the present invention is used;

FIG. 5 is an enlarged fragmentary plan view of the error impression shown in FIG. 3, with the particular letter error impression obliterated in accordance with the present invention;

FIG. 6 is a view similar to FIG. 4, illustrating the manner in which the correct impression is placed upon the copy sheet following the obliteration of the error impression thereof; and,

FIG. 7 is an enlarged fragmentary plan view of the copy sheet following the correction thereof.

Referring now to the drawing, the correction material **10** made in accordance with the concepts of the present invention, is shown to include a base sheet **12** of flexible material, such as a lightweight paper, having one side of any desired color and design, which may also be used for printing instructions as to the manner of using the correction material. The opposite side of the base sheet **12** is preferably completely coated with a transfer layer **14** of a composition suitable for the purpose of the present invention and to be hereinafter described. This composition should have such characteristics as to be imprintable upon a paper sheet with a matte or glossy finish; of approximately the same color or tone as the stock being typewritten upon; and which will accept a deposit of carbon or other typewriter impression material thereupon after transfer to the stock sheet.

The correction material **10** is preferably manufactured in small strips so as to be especially useful for correcting minor errors, such as misspelled words, short sentences, and the like. However, it must be recognized that such articles may also be constructed in any desired shape and size so as to be readily available for correcting entire pages, paragraphs, and the like, should such be deemed desirable and necessary. The sheet **10** shown in the drawing is provided with score lines **16**, which will permit sections of any desired size to be removed for use.

In practicing the method of correcting errors in accordance with the present invention on a typewritten sheet **20** having an error, such as a misspelling of a word **22**, the carriage of the typewriter is first returned to the origin of the error and the article **10** is placed directly upon the face between the typewriter ribbon **23** and the stock in the typewriter. The key of the typewriter is then actuated to strike the same letters as the error **22** appearing on the copy so that the type bar **24** of the typewriter will impinge upon the back side of the article **10**, through the ribbon, to transmit sufficient coating material from the layer **14** to completely coat such error to be corrected and obliterate it, as shown upon the sheet **20***a* in FIG. 5. The typewriter carriage is then again returned to the point of origin of the error and the article **10** is removed, so that the typewriter may then be actuated to cause the correct type bar **26** to imprint the correct letter **27** directly upon the obliterated errors of the stock, to produce a corrected copy sheet **20***b*, as shown in FIG. 7.

In actual use, individual sheets or sections **10** may be placed between each carbon copy page and the respective sheet of carbon paper therefor, so as to simultaneously correct the errors on each of the original and carbon copy sheets at the same time. In correcting the

original and copy sheets in this manner, the same method of adjusting the carriage and obliterating the mistaken copy is followed as described above, and following which the corrected impressions are made after the correction sheets 10 have been removed.

The composition which is used to correct erroneously typed impressions is coated on a sulphite paper by means of a formulation using wire rod coating, reverse roll coating or any other suitable conventional or new coating technique. Upon evaporation of the volatile portion of the formulation a dry white coating remains on the paper.

The composition of the present invention consists of a pigment mixed with a vehicle to facilitate the coating, spraying, or brushed application to a pressure-transmitting carrier, such as a ribbon or strip of paper, or such ribbon or paper may be impregnated with such agent together with an additive of between ½% to 1% metallic material such as aluminum.

The pigment of the agent made in accordance with the present invention consists of titanium dioxide and magnesium silicate thoroughly mixed together with an additive of aluminum of an extra fine leafy grade.

A preferred embodiment of the composition consists of 58.1% solids and 41.9% volatile solvents. The portion comprised of solids in the composition has a ratio of 96 parts pigments to 4 parts binder. The pigments portion of said composition consist of 75 parts titanium dioxide and 25 parts magnesium silicate. The binder is a mixture of 4 parts vinyl chloride-vinyl acetate copolymer. An additive of ½ to 1% of aluminum is provided. The solvent portion of the composition consists of a mixture of solvents such as methyl-ethyl-ketone and toluene in approximately equal amounts. The composition is made by dissolving the soluble materials in the solvents and then adding the insoluble materials. A very fine dispersion of the insoluble materials is formed by ball milling or any other suitable type of dispersing technique.

By adding ½–1% of aluminum extra fine leafy grade to the composition, there is obtained more permanent adherence of the composition to the erroneously typed impression resulting in a clearer, neater, longer lasting typeover or opaquing of said error. The permanence of the composition containing aluminum will, thus, add to the functional value of the masking paper by making the erroneously typed impression less apparent. The percentage of said aluminum added to said lacquer is based on the entire ink. The said aluminum is stirred in said ink with a high speed mixer. Further, the addition of aluminum or bronze to the titanium dioxide and magnesium silicate is instrumental in preventing the oils from erroneously typed impressions from seeping through by forming a shield over that substrate. The aluminum acts in this case as if a piece of aluminum were placed in the middle of a sponge and the water in it was not permitted to seep through to the surface.

The use of aluminum in the composition which is coated on sulphite paper acts in such a way as to reduce bleed through when coated correction paper is used to correct erroneous impressions typed with an inked ribbon.

With a small amount of aluminum added to the composition the amount of bleed through is cut-down considerably. When a typeover is made over the composition, now deposited over said ink of erroneously typed impression, the amount of bleed through of said ink is reduced. The ink is held down, or prevented from seeping through to surface by the aluminum which acts as a shield and results in making the corrected area less apparent when a typeover is made. If too much aluminum is added to the lacquer bleed through will be prevented, as stated above, but to such an adverse degree that when a typeover is made the porous bond paper or other suitable typing paper on which inked impressions are struck will not absorb the ink released from the typewriter ribbon when the typeover is made. The released ink will remain on top of said aluminum and not be absorbed, as is normal by the porous paper. This, of course, will result in a floating layer of ink which will take longer to dry and therefore increase the chances of smudge, etc.

By coating the face or printed side of the sulphite paper with the composition containing aluminum or bronze, the paper is strengthened in a totally unexpected degree and it is easier to handle when inserting in position in a typewriter.

A latitude of modification, change and substitution is intended in the foregoing disclosure, and in some instances some features of the invention will be employed without a corresponding use of other features. Other binders such as acrylics, nitrocellulose, and cellulose acetate are contemplated with their corresponding solvents. Accordingly, it is appropriate that the appended claim be construed broadly and in a manner consistent with the spirit and scope of the invention herein.

I claim:

1. Correction material for masking an impression comprising a paper sheet having thereon a coating consisting of a pigment comprising 75 parts of titanium dioxide and 25 parts of magnesium silicate, 4 parts of a binder of vinyl chloride-vinyl acetate copolymer, and a metallic additive to said pigment of ½ to 1% by weight of aluminum.

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U.S. Cl. X.R.

101—463; 117—2, 152, 155

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,552,990 Dated January 5, 1971

Inventor(s) Victor Barouh

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the heading to the sheet of drawings line 1, "B. BAROUGH" should read -- V. BAROUH --.

Signed and sealed this 1st day of June 1971.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

WILLIAM E. SCHUYLER, JR.
Commissioner of Patents