

UNITED STATES PATENT OFFICE.

FREDERICK C. COLBURN, OF ARLINGTON, NEW JERSEY, AND JOSEPH R. FRANCE, OF NEW YORK, N. Y., SAID COLBURN ASSIGNOR TO THE ARLINGTON MANUFACTURING COMPANY, OF NEW JERSEY.

INDELIBLE PRINT OR PICTURE.

SPECIFICATION forming part of Letters Patent No. 429,843, dated June 10, 1890.

Application filed November 29, 1889. Serial No. 331,960. (Specimens.)

To all whom it may concern:

Be it known that we, FREDERICK C. COLBURN, of Arlington, in the State of New Jersey, and JOSEPH R. FRANCE, of the city, county, and State of New York, have invented certain new and useful Improvements in Indelible Prints or Pictures, of which the following is a specification.

The object of our invention is to produce an absolutely water-proof and indelible design, picture, print, photograph, or the like by the use of pyralin (which is a pyroxyline compound) or other pyroxyline compound and by a novel method hereinafter described, and which picture or print so produced shall possess a high polish and finish and the ivory-like appearance of polished pyralin or celluloid or similar pyroxyline compounds. Attempts in this direction have been made by printing, engraving, or lithographing directly on celluloid; but all pictures or prints so produced can be effaced or rubbed off, and, in fact, rub off, and therefore become useless in a more or less short period of time, except such as are indelibly printed in the manner described in Letters Patent No. 393,750 and No. 393,753, dated December 4, 1888. Furthermore, no pictures or prints on celluloid or other pyroxyline compound have hitherto been produced that could be polished and finished with that high polish to which pyroxyline compounds are capable and for which they are so highly valued. We, however, have invented a simple and cheap method of producing a highly finished and polished water-proof, indelible, and durable picture, print, or the like, and which shall possess all the delicate shades and beautiful effects of any kind of lithograph, photograph, engraving, etching, sun-print, print from type, or electrotpe, &c., and our method is substantially as follows:

To one or both sides of any print or picture of any color and on any material, preferably paper, linen, silk, wood, or other fibrous or textile character, is united by any of the well-known ordinary means a sheet or sheets of pyralin, celluloid, or other compound having pyroxyline as a base, which sheets are of such a thinness as to be transparent or semi-

transparent and of any desired size, thus producing an article of manufacture consisting of a print or picture of any kind or color on any material between two sheets of pyralin or other pyroxyline compound, or a print or picture of any color on any material with a sheet of pyralin on one side only as a facing. Of course, as will be understood, where two sheets of pyralin or other pyroxyline compound are used, one for the front or face and the other for the back of the picture, it is only necessary that the sheet for the front or face of the picture should be transparent, and the other sheet used as a backing may be of any desired color, and these pyralin sheets are preferably made a little larger in length and width than the picture or print to which they are to be united, so that their edges may be united together, thereby completely inclosing said picture or print within the pyralin sheets, and thus producing an absolutely water-proof picture or print, as in such case not even the edges of the interposed or inclosed picture or print will be exposed.

The sheet or sheets of pyralin are first obtained in the manner now well known, and are united to the print or picture by cementing them together by wetting the surface of the picture or print with alcohol or other solvent of pyroxyline and then applying heat and pressure, or they may be otherwise cemented together or united with a transparent size or paste-gum, or without the use of a solvent by heat and pressure; and while we do not confine ourselves to any particular method of uniting the pyralin sheet or sheets to the picture or print, yet we prefer the manner first mentioned as being the most successful. As will also be readily understood, the picture or print may have a backing of card-board or wood, and the pyralin compound will then be united to the face only of the print or picture in the manner above referred to.

After the picture has been securely united to or between the pyralin sheet or sheets the pyralin sheet or sheets are polished in any well-known manner—for instance, by press-

ing them against highly-polished metal plates—or the pyralin sheets may be first polished and afterward united to the picture or print.

5 The method herein described may also be successfully used for decorating furniture, producing a veneering which may be applied or secured to the tops of tables, &c.

What we claim as our invention is—

10 1. As an article of manufacture, a picture, print, or the like of any kind or color and on any material with a transparent or semi-transparent sheet of pyralin or other pyroxyline compound securely united to its front
15 or face, substantially as and for the purpose set forth.

2. As an article of manufacture, a picture, print, or the like of any kind or color and on any material securely fastened or united be-
20 tween two sheets of pyralin or other pyroxyline compound, substantially as and for the purpose set forth.

3. As an article of manufacture, a picture, print, or the like of any kind or color and on
25 any material securely fastened or united between two sheets of pyralin or other pyroxyline compound, said sheets being a little larger in length and width than the picture
30 or print to which they are to be united and having their edges joined or united together, thereby completely inclosing the picture or print, substantially as and for the purpose set forth.

4. As an article of manufacture, a picture,
35 print, or the like of any kind or color on paper, silk, or other fibrous or textile material securely fastened or united between two sheets of pyralin or other pyroxyline com-
40 pound, said sheets being a little larger in length and width than the picture or print to which they are to be united and having their edges joined or united together, thereby completely inclosing the picture or print, and the
45 one of said sheets on the front or face of said picture or print being transparent and the other of any desired color, substantially as and for the purpose set forth.

5. As an article of manufacture, an indeli-
50 ble water-proof and polished picture, print, or the like consisting of a picture, print, or the like of any kind or color and on any material securely fastened or united between two sheets of pyralin or other pyroxyline com-
55 pound, said sheets being polished and also a little larger in length and width than the picture or print to which they are to be united and having their edges joined or united to-
60 gether, thereby completely inclosing the picture or print, and the one of said sheets on the front or face of said picture or print be-

ing transparent and the other of any desired color, substantially as and for the purpose set forth.

6. The method of manufacturing an indeli-
65 ble picture, print, or the like, which consists in securely uniting to the front or face of any print, picture, or the like a sheet of pyralin or other pyroxyline compound, substantially as set forth.

7. The method of manufacturing an indeli-
70 ble water-proof picture, print, or the like, which consists in securely uniting any picture, print, or the like between two sheets of pyralin or other pyroxyline compound, sub-
75 stantially as set forth.

8. The method of manufacturing an indeli-
80 ble water-proof picture, print, or the like, which consists in securely uniting any picture, print, or the like between two sheets of pyralin or other pyroxyline compound and
85 uniting or joining together the edges of said sheets, so as to completely inclose the interposed picture, print, or the like, substantially as set forth.

9. The method of manufacturing an indeli-
90 ble water-proof and polished picture, print, or the like, which consists in securely uniting any picture, print, or the like between two sheets of pyralin or other pyroxyline com-
95 pound and uniting or joining together the edges of said sheets, so as to completely inclose the interposed picture, print, or the like, and polishing said sheets of pyralin or other pyroxyline compound, substantially as set forth.

10. The method of manufacturing an indeli-
100 ble water-proof and polished picture, print, or the like, which consists in securely uniting any picture, print, or the like between two sheets of pyralin or other pyroxyline com-
105 pound by wetting the surfaces of the picture, print, or the like with alcohol or other solvent of pyroxyline and applying heat and pressure to said sheets after the picture or
110 print has been placed between them, and at the same time and by the same operation uniting or joining the edges of said pyralin sheets together, which sheets are a little larger in length and width than the interposed pic-
ture, print, or the like, so as to completely inclose the interposed picture, and then polish-
ing said sheets of pyralin or other pyroxyline compound, substantially as set forth.

This specification signed and witnessed this
25th day of November, 1889.

FREDERICK C. COLBURN.
JOSEPH R. FRANCE.

In presence of—

A. W. KIDDLE,
GEO. H. SONNEBORN.