



The National Type Foundry
188 Monroe Street, Chicago

SERIES ALFERETA

ORIGINAL DESIGN

18 PT. ALFERETA

8 A, 16 B. \$4.25

United States Regular Army Maneuvers
Great Sham Battle, Cavalry Drill and Grand Autumn Parade
9532 Battle-Scarred Warriors

30 PT. ALFERETA

5 A, 10 B. \$6.25

Tenth Annual Encampment
Sons of Veterans National Commandery
Two Little Girls in Blue, Boys

24 PT. ALFERETA

6 A, 12 B. \$5.40

The Grand Army Excursion
Yearly Convention of the Nation's Brave Defenders
582 Coffee Boilers Thrilling Yarns

12 AND 36 PT. IN PREPARATION

SERIES IROQUOIS

ORIGINAL DESIGN

18 PT. IROQUOIS

8 A, 12 B. \$4.50

EXECUTIVE DEPARTMENT
New York Railroad and Steamship Co.

20 PT. IROQUOIS

4 A, 7 B. \$8.00

→ MINNESOTA ←
Whaleback Steamships

24 PT. IROQUOIS

5 A, 8 B. \$5.55

→ MODERN BEAUTIES ←
Excelsior Complexion Remedy
1 2 3 4 5 6 7 8 9 0

28 PT. IROQUOIS

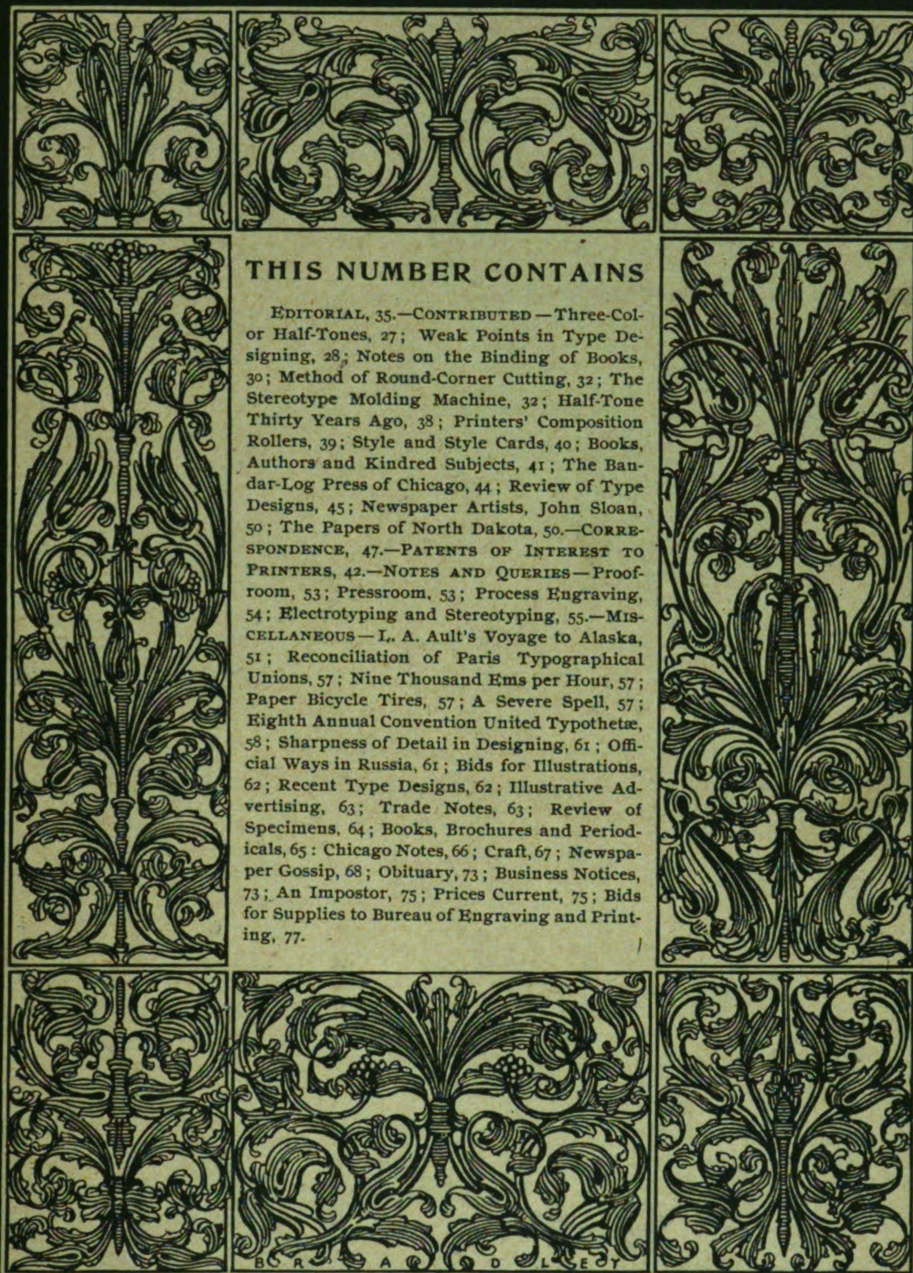
4 A, 6 B

Lake SHORE Route

Manufactured by THE NATIONAL TYPE FOUNDRY, 188 Monroe St., Chicago.

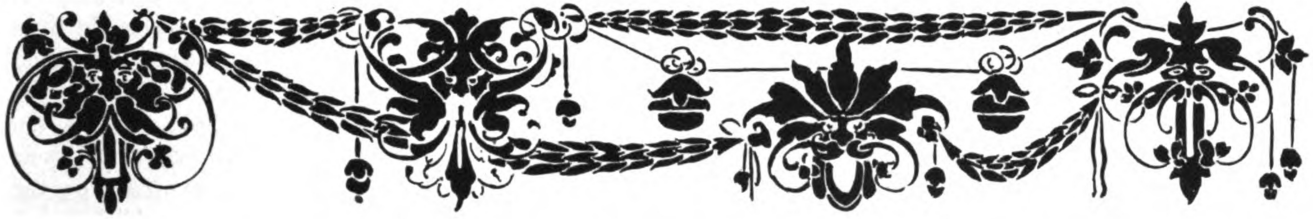
6, 8, 10, 12, 42 AND 48 PT. IN PREPARATION

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THREE-COLOR HALF-TONES.

NO. I.—BY W. H. HYSLOP.



WRITING for and from the standpoint of the average photo-engraver, if we commence in the unusual way of discussing failure and causes of failure it is only because we are so thoroughly acquainted with his tools and surroundings. It will be granted that even

the best operators in photo-engraving establishments have, on more or less rare occasions, experience of fog, arising from some cause generally connected with the silver bath, and how seldom such fog arises from any defect in the camera; and yet it is not because the camera is perfect and light-tight, but because of the extreme insensitiveness of the wet plate to anything but direct light.

We are quite within the mark when we say that two-thirds of the cameras used in photo-engraving establishments are not light-tight, although for years good work has been turned out with them. We do not even exempt new cameras from this statement. Taking these facts into consideration, it is necessary at the outset to examine the camera thoroughly and close up holes wherever found; the joints between the bellows and frame are generally defective and require felt and good screwing up to make them perfect. If, after testing, the camera is found all right, the attention must be turned to the plateholder, and some method must be found to insure the three negatives being exactly the same size; there must be no variation—one-sixtieth of an inch in a six-inch picture will spoil the whole effect. This is apt to be overlooked till too late, the fault not being apparent till the blocks are in the printing press. The best way to get over the difficulty is to make every part of the camera absolutely rigid.

The darkroom next requires attention, and if arrangements can be made for an extra darkroom or drying room so much the better. Of course, it is

necessary to see that white light does not creep into these rooms from unthought-of quarters, and a ruby lamp, such as is used by dry-plate photographers, must be ready for use as required.

Supposing everything has been done that forethought can imagine, we can proceed with the negative making. We are not going to theorize and argue as to whether the primary colors are violet, red and green, or yellow, red and blue; we have nothing to do with that at present, our object being to give instructions that will lead to good results.

For the sake of explanation we will suppose a diagram made up of standard yellow, red and blue figures, and we wish to reproduce it. Now, there is no known photographic process which in its negative will give the red and blue of equal density and the yellow as clear glass. So it is necessary to compromise, and in making our negative we get both red and yellow as clear glass. To make this negative it is only necessary to make it with an ordinary wet plate without any color screen. Any screen used would only lengthen the exposure without any compensating benefit.

The ordinary collodion negative is quite insensitive to our standard yellow; but, as that yellow becomes lighter or more nearly approaches white, you have a deposit in due proportion to the amount of white contained in it. The block made from this negative will be printed in yellow, and, of course, the yellow will underlie the red, and might be considered as untrue, but by a later compromise we reach a true result.

In making the negative for the red plate, the object is to get our blue and yellow of as equal a density as possible and our red as clear glass. A collodion plate would not do this, no matter what treatment was given it, and no matter what color screen was used, so we have recourse to a gelatine plate which has been sensitized for the yellow. Now, there are several brands on the market which are so sensitized, but they are not all suited to our purpose without very great differences in treatment; consequently, it is not advisable to discard a batch of plates without trying different methods.