

or marble slab, by means of the muller, and never upon an iron or other metallic table. The table, before mixing, should be thoroughly clean and perfectly free from the slightest soil or trace of other inks.

3. For working colored inks the roller should not be too hard, and should possess a biting, elastic face. When change of color is required it should be cleaned with turpentine, and a moist sponge passed over the face, allowing a few minutes for the roller to dry before resuming its use.

For bronze printing the roller should have a firm face, or the tenacity of the preparation may destroy it; yet it must have sufficient elasticity to deposit the preparation freely and cleanly on the type.

4. Various shades may be produced by observing the following directions:—

*Bright Pink Ink.*—Use carmine or crimson lake.

*Deep Scarlet.*—To carmine add a little deep vermilion.

*Bright Red.*—To pale vermilion add carmine.

*Deep Lilac.*—To cobalt blue add a little carmine.

*Pale Lilac.*—To carmine add a little cobalt blue.

*Bright Pale Blue.*—Cobalt.

*Deep Bronze Blue.*—Chinese.

*Green.*—To pale chrome add Chinese blue; any shade can be obtained by increasing or diminishing either color.

*Emerald Green.*—Mix pale chrome with a little Chinese blue, then add the emerald until the tint is satisfactory.

*Amber.*—To pale chrome add a little carmine.

*Deep Brown.*—Burnt umber, with a little scarlet lake.

*Pale Brown.*—Burnt sienna; a rich shade is made by adding a little lake as above.

#### The Proper Position of a Compositor.

The standing position of a compositor should be perfectly upright, without stiffness or restraint; the shoulders thrown back, the feet firm on the floor, heels nearly closed, and toes turned out to form an angle of about forty-five degrees. The head and body should be kept perfectly steady, except when moving from the Roman to the Italic case, the operations of distributing and composing being performed by

the various motions of the arm, from the shoulder-joint alone; and if, to reach a box placed in the furthest part of the cases, to put in or take out a letter, he should incline the body by a slight motion, he should immediately resume his erect position. The height of a compositor and his frame should be so adjusted that his right elbow may just clear the front of the lower case by the a and r boxes without the smallest elevation of the shoulder-joint; his breast will then be opposite the space, h and e boxes. Sitting at work should be rarely permitted, except for lameness, weakness, old age, or other infirmity; and then the stool should be a small piece of board fastened to a single leg. Habit will render a standing position familiar and easy; perseverance in conquering a little fatigue will be amply repaid by the prevention of knock-knees, round shoulders and obstructed circulation of the blood and respiration of the lungs.

#### How to Multiply Colors.

A printer who has on hand a stock of yellow, carmine, blue and black inks may produce other colors and shades by intermixing as follows:—

Yellow and carmine mixed will give..Vermilion  
Carmine and blue.....Purple  
Blue and black.....Deep blue  
Carmine, yellow and black.....Brown  
Yellow and blue.....Green  
Yellow and black.....Bronze green  
Yellow, blue and black.....Deep green

Lighter shades may be obtained by adding proper proportions of white ink.

#### Miscellaneous Hints.

It must be remembered that in ornamental printing absolute cleanliness is indispensable. The same roller should never be used for different colors, even after it has been washed. Instead of hanging exposed to dust and to the air, rollers should be kept in a tightly-closed box; and in this manner they will remain a long time in good order. The tins of ink should be similarly preserved, and the lids never left off except at the moment of using from them. These are small matters; but it is only by patient attention to minute details that excellence can be attained in printing.

CORRESPONDENTS will oblige by mailing their favors so that they will reach this office, at least, not later than the 25th of each month, and as much earlier as possible.