

a dark gray permanent color? It is called "steel bronze" dip. A. The gray or black dip referred to is prepared as follows: Hydrochloric acid, 12 lbs.; ferrous sulphate (copperas), 1 lb.; arsenious acid (pure white arsenic), 1 lb.; dissolve in the acid. Dip the articles bright in dilute nitric acid, rinse in clean water, and immerse in the bronze dip until the proper color is developed. Rinse in cold water and dry in warm sawdust. The green lacquer usually employed is made by digesting together in a warm place, with occasional agitation, shellac, 5 ozs.; sandarac, 4 ozs.; gamboge, 1 oz.; turmeric, 6 ozs.; wood spirit, 1/2 gallon.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

E. A. S.—They are iron garnets—the well formed crystals are sometimes used as jewelry.

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COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges with much pleasure the receipt of original papers and contributions on the following subjects:

- Government Manufactures. By F. M. S.
Bromide of Ammonium. By E. H. W.
Aluminum as a Negative Element in Galvanic Batteries. By J. M. S.
Acoustic Telephones, etc. By J. J. B.
On Small Steamboats. By G. H. S.
On Economy of Weight in Gearing. By J. O. B.
On the History of the American Lead Pencil Manufacture.

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were

Granted in the Week Ending

October 22, 1878,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

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