

changed in the wool, for any such bichrome will certainly react upon the logwood and make it turn green.

In some degree the mordanting with potassium bichromate and sulphuric acid resolves itself into mordanting with free chromic acid, for that is the active element that is separated in the bath, and in that case we really arrive at the Amend process. There is no doubt the potassium sulphate which is present in the mordanting bath has some influence on the rate of mordanting. While it is essential for the production of a chrome-logwood black that the mordanting bath shall contain free acid so as to produce the oxidizing mordant in the greatest possible degree, yet where a non-oxidizing mordant is wanted it might be possible to economically procure it by first treatment in a bath of bichromate and sulphuric acid followed by a treatment in a bisulphite bath to ensure the decomposition of the chromic acid on the fiber into chromic oxide. Bisulphate of soda has been used, but it has no advantage over sulphuric acid, and is much dearer.

There is one rather important point which may be noted here; in mordanting with bichromate and sulphuric acid the bath should be kept near the boil, say from 195 deg. to 200 deg. F. It is not essential that it should be actually boiling or that strong ebullition be maintained. Too high a heat is always to be avoided in dealing with wool, for it has, especially in the presence of acids and other bodies, a serious influence on the structure of the wool fiber, rendering it harsh and unfeltable, and that is not desired. So the lower the bath is kept the better, and one advantage that is claimed for the Amend process is that it can be worked at a lower heat, 180 deg. to 190 deg. F., than is possible with the older processes, and so it leaves the wool softer and more active, which is by no means a small one. Some dyers think that in order to mordant or dye wool properly it is necessary to work at a full boil. This is by no means essential; the only advantage to be gained is a little quicker working, but by giving a little longer time at a lower heat the same effective mordanting or dyeing is attained without so much risk of making the wool harsh and hard.

(To be continued).

LITERARY NOTES.

When sending Christmas or New Year's souvenirs to friends abroad we would commend to our Canadian readers the Canadian Magazine, Toronto; the Prince Edward Island Magazine, Charlottetown; and the Newfoundland Magazine, St. John's, Nfld. The price of the first-named is 25 cents, the second 5 cents, and the last named 10 cents, and all contain good matter creditable to Canadian writers and more or less appropriate to the time.

Among the attractive Canadian books for the holiday trade, one that is very daintily presented from the press of William Briggs, Toronto, is a volume of poems, under the title of "In Bohemia." The author is Mrs. Sterry Hunt, daughter of the late Judge Gale, and widow of the late Dr. Sterry Hunt, one of the most eminent of Canadian geologists. Mrs. Hunt was born with a poetic taste, and many of her poems written for the periodical and daily press, over the signature "Canadienne," when she was Miss Gale, will still be remembered by readers of poetry. While the dramatic sketch which gives the title to the book may be open to criticism on dramatic grounds, the poems which form the body of the volume show poetic power as well as true poetic art. The verses, "To an English Violet in Foreign Lands," are not only charming, but memorialize an incident in the life of our Queen, which is well worthy of such a memorial. "Lines on the visit of Prince Jerome Napoleon to Canada, August, 1861," are prefaced by the following comment: "At the time these verses were written, the author, in

common with many others, cherished the brightest visions of an era of prosperity and progress for France—material, moral and spiritual—in the not distant future. Succeeding events, even before the Franco-German war of 1870, proved too well the futility of such dreams." This is the closing stanza of the poem:

"Let but thy future, France, fulfil
This opening promise bright;
Let Peace those surging passions still
That waken with thy might;
Let that calm pride of worth be thine
That shames the pride of power,
And ever brightest seems to shine
In misery's darkest hour!"

Upon which The Montreal Gazette in an appreciative notice of the book observes that "the wish is not inopportune, even now." The volume throughout gives evidence that its author is a woman of refined mind and elevated tastes, and its typographical appearance is in harmony with its contents. There are several pretty illustrations, among them being a scene in old Montreal, illustrating the poem "A Summer's Day in old Montreal" (Toronto: William Briggs, \$1).

We have received a dainty and artistic volume entitled, "Field Flowers," containing a selection of Eugene Field's best and most representative works. This book is handsomely illustrated by thirty-two of the world's greatest artists—who have contributed their work free out of admiration of the poet—and the volume is given as a souvenir to anyone contributing one dollar or more to the Eugene Field Monument Souvenir Fund.

The Christmas Century is resplendent in an appropriate colored cover designed by Herter; and the frontispiece is one of a group of full-page and minor decorations, richly printed in color and tints, illustrating the great ode "On the Morning of Christ's Nativity," which is reprinted from Masson's edition of Milton's poems. Special attention has been paid to color printing in The Century of late years, but it is believed that nothing else that has been done in the magazine quite equals in richness of effect the results that have been attained in this number. Not to speak of a fine budget of light reading, the articles of serious interest are: "The Struggle on the Peking Wall," by W. N. Pethick, private secretary to Li Hung Chang, describing a critical moment in the fortunes of the besieged legation; "With the Peking Relief Column," by an American war correspondent, Frederick Palmer; "Significant Knowledge of the Bible," offsetting President Thwing's recent paper on undergraduates' unfamiliarity with Biblical incidents; "Paths of Hope for the Negro," by Jerome Dowd, and "What More Than Wages," a study of recent efforts by employers to admit their "hands" to a share in the profits of their business.

NETTLE FIBER IN TEXTILE MANUFACTURES.

The American Consul at Glauchau, Germany, reports that nettle fiber has of late come greatly into favor in the manufacture of fine yarns and tissues. In Germany, there are factories which use these fibers both in spinning and also for ulterior purposes. In nettle-spinning alone, over 10,000 spindles and some hundred workmen are employed. The raw material is imported almost exclusively from China, whence 3,000 to 4,000 double cwt. (661,500 to 802,000 pounds) are annually sent to Germany. Nettle fiber produces one of the finest tissues obtainable from any known kind of vegetable fiber. In view of the importance which this seems likely to attain in connection with the weaving industries, it is intended to introduce the cultivation of nettles, if possible, into the Cameroons. The idea is to prepare the products of this experimental culture at the