

EPSOM SALT OF TO-DAY.*

BY EDWARD S. ROSE.

During the summer of 1926 the writer, with the help of a friend, purchased packages of epsom salt in drug stores in twelve states running from New York City to San Francisco.

These samples were put through the U. S. P. tests. Though the main purpose of this paper is to record the results of this analysis, the writer believes it interesting to mention a few things concerning this very useful chemical.

In 1904, the late M. I. Wilbert read a most interesting and comprehensive paper on epsom salt before this Section.¹ If interested, it is well worth one's time to read it.

Samples of epsom salt bought in retail pharmacies at that time showed unnecessary admixture of substances as wood, nails, string, straw, etc. Also some of the samples were dark in color and quite moist. The samples that the writer collected last summer were of a high degree of purity and free from these objectionable qualities and foreign substances.

In 1904, there were imported some 2,700,000 pounds of epsom salt. In 1925 the amount imported was 8,211,278 pounds, according to the Department of Commerce. The total consumption in the United States is about 50,000,000 pounds a year. So more than 80 p.c. of the epsom salt used in this country is made here.

For a number of years now the epsom salt manufactured in this country has been made almost entirely from native magnesium carbonate, called by the trade, magnesite. This raw material comes mainly from California; some is imported from Austria and Greece.

Though epsom salt is known widely as a saline laxative, probably the major portion of the consumption is used otherwise; to some extent for other medicinal purposes, but chiefly in a technical way.

A solution of epsom salt is used in the external treatment of erysipelas, sprains, bruises, etc.; for bathing purposes; as a cosmetic, employed as a bleach, a wrinkle remover, a hair grower, etc.; chemically as a reagent and source of other magnesium salts.

Epsom salt is used in the tanning process of sole leather; as a component material in enamel ware; in dyeing as a mordant; in the bleaching of animal fibers; in the cotton mills for dressing purposes; in the manufacture of paper to give a hard and glossy finish; as a clarifying aid in the manufacture of beet sugar. Considerable quantities enter into poultry and stock remedies.

Because of duplication in the twenty-odd samples of epsom salt collected by the writer only twelve were examined. Some rather interesting notations were made—eight of the samples were evidently packaged by the druggist; eleven were in cartons and one in a paper bag; nine were wrapped, three of these fastened with rubber bands, one with a string, and five with the paper merely twisted at the end; four of the twelve were neatly wrapped; six of the samples had effloresced considerably. As regards the amount and cost per package, it was noted that

* Scientific Section, A. Ph. A., St. Louis meeting, 1927.

¹ PROCEEDINGS A. Ph. A., 52, 351.

four contained 4 ounces at 5¢; one, 8 ounces at 10¢; two, 6 ounces at 10, and five, 4 ounces at 10¢.

RESULTS OF ANALYSES.

All the samples met the Mg and SO₄ test, also that for heavy metals and for arsenic. U. S. P. requirement, Mg₂P₂O₇, 0.4495-0.4944.

Sample state.	Crystal-form.	Chlorides.	Assay Mg ₂ P ₂ O ₇ .	Sample state.	Crystal-form.	Chlorides.	Assay Mg ₂ P ₂ O ₇ .
Ind.	Prism	More	0.4598	N. Y.	Needle	Less	0.4816
Ill.	Needle	Less	0.4528	U.	Needle	Less	0.5233
Pa.	Prism	More	0.4828	Ia.	Needle	Less	0.4580
O.	Needle	Less	0.4604	Calif.	Prism	Less	0.4692
Md.	Prism	More	0.4700	Col.	Prism	Less	0.4916
D. of C.	Needle	More	0.4633	Nev.	Prism	Less	0.4606

Remarks.—All of the samples were of excellent quality except for a slight difference in chlorides and that one sample assayed high due to the effloresced condition.

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THE DRUGGIST AND THE LAW.*

BY CHESTER A. BATCHELOR.

The subject assigned to me for discussion is, at the best, prosaic. A distinguished jurist has remarked that the average individual shuns the law and only seeks methods of avoiding the law and the courts. However, as society has progressed and become more complex, the law, that is, the organized rule of conduct, has likewise become complex and no one, whatever be his business or status in life, can in this age avoid contact with the law. In the march of civilization, because of their conservative nature, the so-called learned professions have progressed the most slowly. Ever through the ages, these professions, law, medicine, pharmacy and religion, have been the conservative, the steadying processes of civilization. At times the learned professions have been too conservative but it cannot be denied that the very conservative tendencies of the so-called learned professions have been of great value to civilization.

You belong to an honorable learned profession which has evolved in the course of time from that of the compounding of drugs with high-sounding impressive names, to that of salesmen and merchants. Gone forever is the corner drug store of my youth, with its large stock of drugs, whose business was confined solely to the compounding of medicines and the sale of patent and proprietary medicines with perhaps an occasional sale of stationery and jewelry on the side. The main business of the drug store of two generations ago was confined to the sale of drugs, compounded in the store. The main business of the drug store of to-day is the sale of patent and proprietary medicines and drugs compounded in large pharmacal laboratories, and the sale of a large variety of general merchandise. The word "sundries" as applied to the average drug store of to-day no longer means drug sundries but all sorts of merchandise ranging from hardware to foods and food supplies. The successful

* Parts of an address by Judge Chester A. Batchelor, of Seattle, at the annual banquet of Washington State Pharmaceutical Association, 1928.