nally and Dioscorides (*Med. Mater., lib. V, cap. 23*) acknowledges sea water was given internally as a purge by itself. He recommended: Equal parts of Honey, Sea and Rain Water: also Wine made with sea water to purge the body, also to relieve those who spit purulent matter, and those that are costive. * * * In *de Parabilibus,* he affirms that sea water drank with Oxymell will break internal abscesses.—p. 150.

Half a pint of Sea Water drank at night going to Bed repeated in the Morning, is generally enough for Adults—p. 153.

For the glands of King's evil—operate and use Sea Water both internally and externally (as embrocations). [Many case reports given]—p. 156.

From what has been said it will appear that this method of cure is no invention of the Moderns, but was known to the Father of Medicine while it was in its infancy—p. 171.

It would appear, therefore, that the idea of using sea water or sea salts for medicinal and health purposes was a custom well established in former times, but one which a careful examination of medical and health literature of the present day shows has been quite discarded (in favor of "purified products"). Instead of the "old fashioned salt" derived by evaporation of sea water and retaining a trace or more of the thirty-odd elements said to be present in sea water, entirely new and also far cheaper source-methods of salt supply (from mines and brines of inland sources) is now the plan, and as a result we have a purified article, *sodium chloride.* Thus, as I have suggested in my previous articles, we have possibly created a condition of iodine and other elemental starvation purely by our commercial procedures. Should we not pursue a "back to nature" plan in this matter, as is advocated in connection with some of our vitamin-free food articles? Necessarily more scientific investigation is still essential to substantiate this, but observational evidence on all sides is strongly in support of it.

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THE CURE AND PREVENTION OF EAR CANKER IN RABBITS

ONE of the many serious chronic diseases of rabbits that may interfere with the use of this animal in laboratory work is "ear canker." This disease may seriously handicap or cripple research, especially experiments requiring months or years of observation on the same animals.

Ear canker is caused by an animal parasite (*Psorocoptes cuniculi*) which closely resembles the mite (*Sarcoptes cuniculi*) causing scabies. Curiously, it attacks only the concha of the ear. The earliest manifestations of infection are indicated by hyperemia and the formation of reddish brown crusts near the bottom of the concha. The hyperemia and crust formation extend and after months may involve nearly all the inner surface of the ear. The most serious complication of the disease is pyogenic infection of the middle ear which may extend to the internal ear and meninges. The parasite spreads more rapidly during the warm months. The disease is widespread, and few, if any, laboratories escape its occasional introduction.

The usual methods prescribed for treatment involve isolation and are elaborate and costly. For many years we have been treating the infection in important animals by the time-honored plan of removing the crusts and swabbing the concha with glycerine containing 2 per cent. carbolic acid. This method, as with many others of the same type, is tedious and time consuming. Last June (1923) when the laboratory was heavily stocked an extensive outbreak occurred, both in the old and the young stock. In casting about for some quick means of attack, we decided to try kerosene on account of its powerful insecticidal action. This was sprayed into the ear with a small De Vilbiss atomizer. Each ear received the amount of kerosene spray discharged from three or four compressions of the bulb or sufficient to moisten only the inner surface of the ear. The ears were sprayed twice, with an interval of six days. At the end of two weeks all the rabbits were cured of the infection and no case has since developed in our rabbit colony, averaging about 200 animals. It is doubtful whether the second spraying was necessary.

We have been prompted to call the attention of other laboratory workers to this well-known infection for the following reasons: (1) This experience was one of the most striking therapeutic effects in mammals we have ever witnessed; (2) Kerosene spray affords a specific, cheap, simple, rapid and certain means, both of curing and preventing the disease.

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THE MEANING OF CONSERVATION

IN an article entitled "Two kinds of conservation," published in *The Scientific Monthly* for March, 1924, Dr. E. E. Slosson makes a statement which, in my opinion, is likely to help to perpetuate an old misconception of the meaning of conservation as applied to natural resources—a misconception which Dr. Slosson probably does not share. The likelihood is increased by the fact that the statement is strikingly clear and forceful—as is usual with what Dr. Slosson says—and is almost but not quite correct.

Dr. Slosson says, "The conservation of oil means not using it, for all the oil that is used is forever lost.

The conservation of water power means using it, for all the water power that is not used is forever lost."

The first eight words of the statement could be used by anti-conservationists in opposing conservation activities on the grounds that the latter require the present generation to suffer for the benefit of future generations. Regardless of the moral status of such a requirement, it is practically certain that no "present generation" would submit to it.

For fifteen or twenty years, America's most effective conservationist, Mr. Gifford Pinchot, has found it necessary to disabuse people's minds of the misconception that conservation means disuse. As recently as May 17, 1924, in an article in the *Saturday Evening Post,* Mr. Pinchot said:

> Let no man persuade you that conservation and stagnation are the same. From the beginning conservation has meant wise use in the public interest, and it means wise use to-day. This generation has a right to all it needs, but no right whatever to waste what it does not need. Our children have their rights as well as we. If there was ever a policy since this world began that was simple, sound and filled with common sense, it is the policy of conservation.

Mr. Pinchot explains in the same article that the oil deposits *in the national reserves* need not be exploited *now.* The reason obviously is that the oil in them is not now needed. But conservation should include privately owned as well as publicly owned oil deposits, just as it should include privately owned forests. Private oil properties are sufficient for present needs and as Pinchot says, "This generation has a right to all it needs, but no right whatever to waste what it does not need."

As a definition of conservation, Dr. Slosson quotes from Acheson: "Conservation consists in the utilization of the inexhaustible for the preservation of the exhaustible." This sounds attractive and it perhaps describes a laudable ultimate ideal. But for economic, physical or other reasons, its practical application is impossible in meeting many of our greatest and most urgent needs, with the knowledge now available. In my opinion a more workable though rougher definition which is readily inferred from the writings of Roosevelt, Pinchot and other great conservationists is, "Use without waste and, wherever possible, with replacement."

The great problem in the conservation of exhaustible resources is to find and to apply feasible methods of increasing the efficiency of utilization, which is about the same as saying to find and to apply feasible methods of reducing waste.

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THE eight words of mine that Dean Farrell criticizes, "The conservation of oil means not using it," are literally true, yet I did not intend them to be taken literally. To keep the oil in the earth would indeed conserve it—if nobody tapped the pool—but it might better have been used up than to remain forever unused.

I am reminded of the poor woman whom a philanthropic visitor found in the slums. She had five small children and one at the breast; her husband had broken his leg; she was out of food and fuel and was about to be evicted from the flat for non-payment of rent. Yet she boasted of having five hundred dollars in the savings bank and when the visitor asked why she did not draw out some of it she replied that she was "saving it for a rainy day."

I really did not anticipate that any reader of *The Scientific Monthly* would suspect me of advocating such an extreme form of conservation. And I hasten to add—lest I be called before the Senate Investigating Committee—that I was not talking about oil especially, but discussing the general principle of conservation applicable to coal, certain metals and minerals, and any other natural resources that are limited and irreplaceable.

Yet I may confess that I believe the day is coming —and I hope to live long enough to see it—when it will be wise to prohibit the burning of petroleum and natural gas because they will be found indispensable as material for the manufacture of organic compounds, possibly even food since edible fats have been made from petroleum. If that be treason, make the most of it.

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MR. W. E. MYER'S ARCHEOLOGICAL COLLECTION

THE late W. E. Myer, of Tennessee, served as volunteer assistant in the Bureau of Ethnology for several years. For about forty years he had made studies of the archeology of the Tennessee and Cumberland river valleys. Dr. J. Walter Fewkes, head of the bureau, told me last May that the bureau had lost a most efficient and valuable worker. Myer was one of the few men in the United States who was familiar with prehistoric cultures throughout the main Mississippi valley. He has left an important work in manuscript form embodying detailed studies in Tennessee archeology.

Up to the time of Mr. Myer's connection with the bureau, he carried on extensive researches at his own expense. He very carefully recorded all specimens