MEDICINE

Experimental Toothaches

Students of pharmacology have offered themselves as volunteers in a "toothache squad" to find out what drugs are the most effective in quelling an aching molar. Dr. Hans Heinroth, a member of the faculty in the department of dentistry at the University of Halle, Germany, conducted the tests which put morphine at the top of the list of the dental pain relievers.

The volunteers submitted to having an electric current passed into their teeth. When pain was produced in this way a signal was given by the sufferer, who sharply raised his right hand. A drug was then administered and the time it took to relieve the pain—or not to relieve it in some cases—was recorded. The drugs most often used to relieve toothache, headache and neuralgia were among those tried. They included quinine, aspirin, pyramidon and phenacetin. Of this group phenacetin was the most effective, and Dr. Heinroth suggests that it is probably better as a cure for normal pain of this type than its allies, which he says are on the whole used more often.

Among sedative drugs hedonal was found to have the best results. Heat and cold were also tried. In the case of toothache heat was found to increase the suffering, whereas cold gave relief. A little alcohol very slightly increased the painful sensations, but a large dose had the effect of blunting them.

Scopolamine, which is used with morphine to induce "twilight sleep," was tried out but was not found to be particularly efficacious in relieving toothache.

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American Diamonds

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derneath to adorn the fingers of America's future brides only time and hard labor can tell. Geologists will not go so far as to say that we have another Kimberley down in the Ozarks, but many of them admit that diamond prospects in Arkansas are at least promising.

Fortunately peridotite is easily recognized by petrologists and geologists, so that would-be investors in possible diamond bearing lands need not be fooled out of their money if they call in expert advice before they actually buy. It is a good thing to remember in this connection that a glassy pebble that will not take a scratch from a piece of emery is

DR. W. F. FOSHAG, mineralogist of the U. S. National Museum, with one of the Arkansas diamonds... He has the job of putting in order and arranging in the museum files pounds of topazes, ounces of opals and some 16,000 other specimens in the famous Roebling collection.

worthy of an examination by a mineralogist. Furthermore, though the diamond is the hardest substance known, hardness does not mean strength, and pounding the suspected gem with a hammer is no fair test of its genuineness. There are several records of American diamonds that have failed to survive this drastic treatment which is popularly supposed to be a sure way of proving a stone's value.

Several diamonds have been found and equally many have undoubtedly been lost in gold placers in California. They are thought to be originally derived from the same type of diamond bearing rock that has been washed down in broken bits in streams from the mountains of volcanic origin. Most of them are small, and there is no telling how many more of the white glassy crystals have been thrown out of the rockers and washing pans of miners interested only to the gleam of yellow dirt.

In the Piedmont region of the Atlantic coast there have been a few found. Virginia claims a single isolated diamond, a big one around 23 carats having been dug up by a laborer working on a street excavation in Manchester as long ago as 1855. In Dysartville, N. C., a shiny pebble later found to weigh four and two-thirds carats attracted the attention of a little boy sent to a spring for water. He fished it out and carried it home. where it excited sufficient interest on the part of the grown-ups to send it to New York for examination. It proved to be the real stuff, and a model of it was displayed in the Paris Exposition of 1889. It is now in the

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SOCIOLOGY

World Figure Code

A new international language, which aims to make it easier for people of one nation to communicate with another, has been invented by an officer in the U. S. Army. The language inventor is Capt. Manly B. Gibson, of the U. S. Coast Artillery, and the language is made out of the common numerals zero to nine, which are familiar to people in most civilized parts of the world.

The system, known as the Gibson code, is said to be applicable to wire, letter and radio communication between different countries. The inventor has so arranged the code that each of 10,000 principal words in the English language is represented by a number, and this number also represents the corresponding word or idea in 20 other important languages.

All nouns begin with the figures 1, 2 or 3; verbs start with the figure 4; adjectives with 5; adverbs with 6; pronouns with 7; conjunctions with 8; and prepositions with 9. Thus in this code: "The boy eats the red apple" would be written: 5 111 409-10 5 516 2013. The hyphenated figure representing the verb signifies its tense. That is to say, if a verb number is followed by a hyphen and the figure 10 it is present tense; and if followed by a hyphen and the figure 30 it is future tense. Likewise the singular and plural nouns are designated by odd and even numbers respectively; for example, 111 means "boy" in any language whereas 112 denotes the plural "boys." In each sentence the predicate is underscored by one line and the subject by dashes by the writer. Direct questions are preceded and followed by interrogation points. Numbers are differentiated from words by being preceded by #.

The code books of the new system will have two parts—a writer's and a reader's section. The writer's section, to be used when composing messages, will be a list of words in alphabetical order followed by the code number assigned to them. The reader's section, on the other hand, will be numbers in numerical sequence followed by the words in that particular language they represent, and will be used when deciphering messages.

The practicality of the new code system has been put to test at the Presidio in San Francisco where groups of soldiers speaking different native tongues and equipped with

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World Figure Code

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code lists were given sentences written out in numbers to decipher. They were able to do this quickly and correctly after the system had been explained to them, as well as write up their original ideas and sentences into code form, for the others speaking different languages to translate.

Captain Gibson, who is stationed at Fort Baker, said that the idea for such a code came to him during the World War when he was in command of a company of foreign-born Americans at Camp Lewis and it was not always easy to express himself so that they could understand.

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Over 50,000,000 people in the United States and Canada, or 45 per cent of the population, have no local public libraries.

In order to keep track of the seal population on the Pribilof Islands, 10,000 one-year-old male seals are to be sheared this year.

Wireless engineers say that doves have difficulty in finding their way home where there are a number of broadcasting stations.

Some kinds of female mosquitoes are vegetarian in their diet, but the most familiar kinds prey on animals and man for their food.

An Australian company has imported 15 tons of typical tobacco soil from North Carolina in which to grow tobacco for a series of tests.

The longest surveyed straight line in the world is believed to be the 700 mile boundary between Alberta and Saskatchewan, in Canada.

Establishment of a division of history in the National Academy of Sciences is advocated by Dr. Michael Pupin, of Columbia University.

International trade terms used by business men of 24 countries are being collected into a book by the International Chamber of Commerce.

Moving pictures are now being used in the steerage of the Atlantic steamers to teach Americanization to immigrants coming to this country.

State laws to protect the bear during the breeding season and make it a game animal are urged by the American Game Protective Association.

American Diamonds

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Tiffany Morgan Collection in the American Museum of Natural History. Several others have been found in the mountainous parts of the state mostly associated with gold placers.

Several stones of considerable size have been found in the Great Lakes section. One weighing 15 carats was turned up in Wisconsin while a well was being dug. It was given to a woman who was a tenant on the property who sold it for a dollar, but extensive litigation ensued when the real value of the stone came out. The jeweler defendant was eventually acquitted on the ground that he was ignorant of the value of the gem when he bought it. It finally passed into the Tiffany collection where it still remains. The largest diamond, so far as is known, that has appeared in this region, weighs over 21 carats, and was brought to light by a Wisconsin farmer while ploughing a field. Several have been found in Michigan and a few in Indiana and Illinois

Geologists who know the region say that systematic search in farmhouses around the Great Lakes where collections of local "curios" have accumulated on clock shelves and corner whatnots, would probably yield several more. About one a year have been coming to light throughout this section since 1894. The color of these stones ranges from pure white to white tinged with pale green or pale yellow.

All of these Great Lakes diamonds have been found in close association with glacial drift deposited by the great ice invasion that slid over the northeastern states from the Arctic north some 80,000 years ago. Just where the original source of the diamonds is, or was, no one knows. Somewhere up in the Arctic region the great glacier froze onto the glittering crystals, carried them southward, and left them scattered around the shores of the Great Lakes when it melted. The problem has fascinated more than one scientist. Studies have been made of the direction of the ice movement and the localities showing the fan of diamond distribution have been carefully noted with the idea of getting some in-noted with the idea of getting some in them up. To date, however, the great diamond store of the Arctic, if there is one, remains securely hidden under the ice fields of northern Canada. Here is a project to allure the scientists and miners of coming generations when all the more accessible sources of the world's diamond supply have become exhausted.

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