

the cavity of a carious tooth; also as an anæsthetic in ingrowing toe nails. He also used it in certain cutaneous eruptions due to cryptogamic causes.

The above is the only notice of it, so far as I am aware, until my article appeared in 1887, and at that time I had not seen the article of Dr. Schaefer. Since that time, however, I have seen various notices of it in different medical journals, and accounts given of the uses to which it has been applied.

I prepare it by adding 1 part, by weight, of carbolic acid to 3 parts of camphor, setting it aside for twenty-four hours, and straining through gauze. It is a permanent liquid, having a specific gravity of 0.990. It is thoroughly antiseptic and possesses unsurpassed germicidal powers. I dipped a piece of fresh meat (beef muscle), a square weighing about 2 ounces, in the carbolate, and then placed it in a bottle, closing the mouth with cotton; then placing the bottle in an east window, so that it was exposed to the sun's rays from the 1st of June until August, or until it was dry. No odor or indication of putrefaction was at any time perceptible. I impregnated gauze and cotton with it, and used it as a dressing for wounds after operations. It prevented suppuration in every instance when it could be well applied; but I found that, if applied to the skin for several days without dilution, it gave rise to an eruption of the surface, and that it was necessary to mix it with oil for continued external use.

I have injected it with a hypodermic syringe into acute abscesses or boils, with the effect of aborting them if suppuration had not begun, and of relieving the pain of them in every instance. When a few drops are injected under the skin it produces complete anæsthesia in the immediate parts which lasts for several hours. Some soreness of the surrounding parts follows, but no abscess. A sharp smarting is felt at first, which only lasts a moment. A little ether or alcohol (pure) should be added to it for hypodermic use, so that it will readily flow through the needle. It combines readily with alcohol, ether, fixed and essential oils, and petroleum derivatives, but not with aqueous solutions or glycerin.

It readily dissolves menthol, cocaine, salicylic acid, iodoform, chloral hydrate, and mercuric chloride. When given internally in capsules, in doses of from 5 to 10 drops, it produces a sensation of warmth of the stomach not disagreeable, and gives rise to camphoric eructations which continue from one to three hours. When applied to inflamed or ulcerated mucous surfaces, such as the tonsils, pharynx, or cervix uteri, it causes smarting for a moment, and then relieves existing pain and acts as an antiseptic stimulant.

When rubbed upon the skin it produces an agreeable warmth of the surface that continues for a considerable time.

When mixed with an equal quantity of cotton-seed oil it forms one of the most agreeable antiseptics to incised, lacerated,

or contused wounds that I have ever used, preventing suppuration always.

When properly applied upon gauze or absorbent cotton, and kept in contact with the wounded tissues, and when suppuration has set in, it changes the character of the discharges completely, destroying all factor if well applied, and relieving pain and soreness sooner than anything that I have ever used.—*Therap. Gazette.* (Condensed).

The Advances Made in Chemical Industries.

The address delivered by the new president, Sir John Evans, F. R. S., before the members of the Society of Chemical Industry on the occasion of their annual meeting at Liverpool on July 12, embodied an interesting history of the progress that has taken place in chemical industry and science during the last half-century. After referring to the enormous impetus given to the iron trade by the introduction of the Bessemer furnace, he drew the attention of his hearers, as if by contrast, to the interesting experiments of Professor Dewar under conditions of extreme cold. Most substances when subjected to these conditions are, so to speak, dead and their ordinary affinities are in abeyance. Thus, sodium of potassium actually floated on liquid oxygen without evincing the least disposition to combine. "Glacial chemistry" will probably compel us to modify our views as to the properties of matter. The future for gas derived from coal, the president thought, was a source of power rather than as a direct illuminant; as for electricity, the field for its application appeared to be as broad now as ever it was. Its economical production was one of the most pressing problems of the day. Reviewing the extraordinary progress that had been made in organic chemistry, he instanced the discovery of mauve by Perkin, which was so quickly followed by an abundant harvest of artificial colors. Not only coloring matters, but flavors and scents have been produced in the chemical laboratory, though art, the president remarked, if superseding nature for a time, must eventually acknowledge her inferiority, even in "pear-drops." The production of sugar was another illustration of the progress in chemical industry. Owing to the improvements in the methods of growing the beet and the process of manufacture, nearly twice the weight of sugar is produced from the root than was the case fifty years ago. Sugar naturally led to the subject of fermentation, and it was the study of fermentation, more particularly the action of yeast on sugar, that led to the elaboration of another and vitally important field of science—bacteriology. The deterrent influence of light on the growth and life of organisms, as illustrated in Prof. Marshall Ward's experiments, was mentioned in this connection. From organisms he brought his hearers face to face with a problem which the chemist has failed sat-

isfactorily to solve—not the disposal but the utilization of sewage. Though many chemists had designed processes which were effectual in decently and economically disposing of sewage, yet the utilization of sewage as a fertilizer has not been brought to a successful or satisfactory issue.—*Lancet.*

Women Drummers.

About a year ago the *Sun* printed a story about a woman who was a commercial traveller. She was a success in her work. Her name was Adele M. Graef, and she was "in drugs" as they say on the road.

The other day Mrs. Graef called at the *Sun* office and asked to see the reporter who had interviewed her last year. What she had to say is of interest because it shows the alacrity with which some women take advantage of every opportunity to go into new branches of work, and also the readiness of business men to employ women in competition with men.

"Since that article appeared in the *Sun*," said Mrs. Graef, "I have traveled all over this country, and everywhere I have found evidence that the story of my work has been read. I couldn't tell you how many women have applied to my own firm. They all said they never thought of that way of earning money until they read the article in the *Sun*. The firms themselves took up the idea. One that I know right here in New York engaged five women on trial, and some of them are still at work. Another firm in this city sent out a woman who has proved very successful. On the road I met two women travelling for St. Louis firms. Both secured their places as a direct result of the influence of that article.

"These women, you must remember, are all travelling for the same line of goods that I carry, druggists' specialties. There are others in other lines. There is no reason why women should not find commercial travelling a source of good income, but very few of them understand that it is extremely hard work and that a woman who would succeed at it must have a good constitution, a stout heart, and a clear head. Given these requirements, there is no reason why women should not compete with men in this profession, as they have in others, and come off with a good share of the profits and the honors."—*N. Y. Sun.*

BACTERIA AND LIGHT.—Buchner and Zink have just published some results on the action of light on micro-organisms in water. They have experimented on the bacilli of typhoid and cholera, and have come to the conclusion that the action of light is detrimental to the life of bacteria. They state, however, that the rays of sunlight have less effect than diffuse daylight, which is certainly not in agreement with the results recently published by Frankland and Ward.