

possess. Specimens thus prepared can be neatly preserved in book form, interleaving the impressions with tissue paper.—*Art Recreations.*

Somewhat Mixed.

Speaking of Mrs. E. Cady Stanton's recent announcement of her political preferences, the *Springfield Republican* says:—"We admire Mrs. Stanton's spunk. She is a gentleman of genius; she is a lady of parts; she has honorably achieved wide influence among the gentler sex of both genders. It is highly proper that she should not only sign a Presidential call, but go into the Convention as a delegate, and take others of her female brethren with him. Perhaps we are getting the pronouns a little mixed; what we mean to say is that this is a free country, and is going to be freer, and that every man and woman of either sex has a perfect right to speak her mind and follow the lead of his own progressive ideas, and we hope she will do it."

Schonbein on Ozone.

The rumour which you helped to spread abroad that Schonbein had succeeded in isolating ozone and antozone, attracted, it seems, the notice of the Scientific Association of France, and that learned body invited Schonbein to come to Paris and exhibit his experiments to the wondering gaze of Parisian savans. Schonbein's reply gives us the exact state of his knowledge or belief on the subject, and is worth communicating to English chemists. He says that he has been engaged almost exclusively, and without interruption, in the study of oxygen for thirty years, and during this time he has discovered a number of facts which allow of his drawing the following conclusions:—1. That oxygen may exist in three different allotropic states;—2. Two of these states are active, and opposed one to the other—he designates one of them ozone, and the other antozone; 3. Equal quantities of ozone and antozone neutralize each other to form ordinary neutral or inactive oxygen; and, 4. Ordinary neutral oxygen may be split up or transformed, half into ozone and half into antozone. The experimental demonstration of the truth of these conclusions, however, he admits, is not so simple—as for example, the composition and decomposition of water; and he adds that the experiments necessary for their logical deduction would occupy more time than could be devoted to a single lecture. "Some scientific journals," says Schonbein, "have been badly informed when they asserted that I had succeeded in isolating ozone and antozone in a state of purity. The assertion is without foundation. It is true that for a long time I have made a great number of attempts to arrive at this desirable end, but always without complete success. Ozone and antozone are always mixed with neutral oxygen from causes closely associated with the generation of the two active modifications." The Professor concludes his letter by offering to come to Paris, should it still be desired, and if his health permit, and give a short course illustrative of the whole subject. It is to be hoped he will be invited, and while here, perhaps he might be induced to go on to London, which I do

not think he has visited since the year he announced his discovery of ozone.—*Paris Correspondent of Chemical News.*

A New Anæsthetic—Another use for Petroleum.

The *Boston Medical and Surgical Journal* has a paper communicated by Dr. Henry J. Bigelow, describing a new anæsthetic. The name "rhigolene," from the Greek word which means extreme cold, is proposed by Dr. Bigelow for a petroleum naphtha, boiling at 70 degrees Fahrenheit. It is one of the most volatile liquids obtained by the distillation of petroleum, and is applied to the production of cold by evaporation. It is a hydrocarbon, wholly destitute of oxygen, and is the lightest of all known liquids, having a specific gravity of 0.625. Dr. Bigelow, after speaking of the different products of petroleum says:

"When it was learned here that Mr. Richardson, of London, had produced a useful anæsthetic by freezing through the agency of ether vapor, reducing the temperature to six degrees below zero, F., it occurred to me that a very volatile product of petroleum might be more sure to congeal the tissues, beside being far less expensive than ether. Mr. Merrill having, at my request, manufactured a liquid, of which the boiling point was seventy degrees, F., it proved that the mercury was easily depressed by this agent to nineteen degrees below zero, and that the skin could be with certainty frozen hard in five or ten seconds. A lower temperature might doubtless be produced were it not for the ice which surrounds the bulb of the thermometer.

"Freezing by rhigolene is far more sure than by ether, as suggested by Mr. Richardson, inasmuch as common ether, boiling only at about ninety-six degrees, instead of seventy degrees, often fails to produce an adequate degree of cold. The rhigolene is more convenient and more easily controlled than the freezing mixture hitherto employed. Being quick in its action, inexpensive and comparatively odorless, it will supersede general or local anæsthesia by ether or chloroform for small operations and in private houses. * * * But for large operations it is obviously less convenient than general anæsthesia, and will never supersede it. Applied to the skin a first degree of congelation is evanescent, but if continued or used on a large scale, the dangers of frost bite and mortification must be imminent."

In 1861 Dr. Bigelow, in experimenting with kerosolenes, of four different densities, found the lightest of them, the boiling point of which was about ninety degrees, to be an efficient anæsthetic by inhalation.—*Scientific American.*

Within a radius of fifty miles Northern Pennsylvania, the oil discoverers have built four cities—Erie, Meadville Titusville, and Corry—with populations respectively of 20,000, 10,000, 10,000, and 7,000.

Pine bark reduced into a pulp and bleached, by different processes, makes a paper of first quality.

It is estimated that 18,000 elephants are yearly killed to supply Sheffield alone with ivory.