

plants to replace the cane. The beet root and sorghum are among the number, but one of the most valuable, which is cultivated in every cornfield in the Middle States as a side product, has been quite neglected. This plant is no other than the common pumpkin, the *Cucurbita pepo* of botanists. Its period of harvesting lasts longer than that of the beet, it is easier preserved and its refuse is just as valuable for the feeding of stock. Pumpkins weigh from 50 to 60 pounds; they furnish about 4 per cent of sugar, their contents in juice is 80 per cent. This juice indicates from 10 to 11 on Baumé's areometer.

The sugar obtained from pumpkins is of a good grain and color. Before refining, it has a slight flavor of melon. The sirup is of a very dark green color, nearly black, and taste like cane sugar.

In Hungary, since the year 1837, several manufactories for making sugar from pumpkins have been in operation. The treatment of this fruit is perfectly identical with that of the beet root, and the machinery used for the purpose the same. — *Scientific American*.

Neutral Carbonate of Ammonia.

It has been generally supposed that this salt could not be obtained in a solid form, but E. Divers has recently succeeded in preparing it by dissolving commercial sesquicarbonate of ammonia in aqua ammonia and ammoniacal gas; also, by passing ammoniacal gas through the solution of the commercial carbonate and cooling the mixture, the new salt will crystallize out. The simple carbonate of ammonia forms silky crystals, easily soluble in water, soluble in 70 volumes of alcohol, and very soluble in the air.

The mean of several analyses gave:—

Carbonic Acid.....	38.60
Ammonia.....	29.82
Water.....	31.58
	100.00

Corresponding to the formula $NH_4O, CO_2 + HO$. — *Journal of Applied Chemistry*.

Syrup of Orgeat.

We have often been desired to give a formula for making a good syrup of orgeat, as the article commonly sold by druggists and others at the soda fountain is very inferior. We have recently seen a very fine syrup, and have been favored with the recipe for making it. Take of the kernels of sweet almonds 1 pound; of bitter almonds, 2 drachms; deprive them of the skin; beat them in a mortar to a paste, and add barley water, 1 qt.; strain and add white sugar, 3 lbs. orange flower water, one tablespoonful, and brandy, 1 half pint. The barley water is made by washing 2 ounces of barley to clear it of extraneous matter, then boiling it in half a pint of water for five minutes, rejecting the resulting liquid. It is then boiled in two quarts of water, until it is reduced to one quart, and strained. — *Jour. of Applied Chemistry*.

Preparation of Podophyllin.

The *Journal de Pharmacie d'Anvers* gives the following recipe for the preparation of podophyllin.—Boil the root of *podophyllum peltatum* with lime, and precipitate the lime from the filtered decoction with double sul-

phate of iron and zinc; evaporate the filtrate to a syrupy consistence, treat the latter with alcohol, and filter again; evaporate the alcoholic solution, and re-dissolve in boiling water. On cooling a deposit of podophyllin is obtained. — *Chemist and Druggist*.

FLUID CAVITIES IN MINERALS.—“Proc. Roy Soc.” No. 109, contains an important paper by Messrs. Sorby and Butler, on fluid cavities in rubies, sapphires, diamonds, etc. A specimen of sapphire, of which they speak, exhibits a remarkable cavity, containing a fluid which appears to be liquid carbonic acid. They said of this fluid, “Though the expansion below 30° (Cent.) was very great, compared with that of any other known substances, except liquid carbonic acid and nitrous oxide, when the temperature rose above 30° (C.), it was so very extraordinary, that it was not until after having performed the experiment over and over again that M. Sorby felt confidence in the results.” They found the expansion 780 times as much as that of water would be, 69 times as much as air and permanent gases. Above 32° (C.) the fluid quite filled the cavity, so that its further expansion could not be ascertained.

THE LAND LEECH, *Trochata subviridis*.—Some interesting correspondence has been published in “Land and Water,” proving that the above leech is a native of this country, as Dr. Gray affirmed in 1850. Some specimens sent by a correspondent, were recently examined by Mr. Henry Lee, who identified them with the *Trochata subviridis* of Dubochet. He showed them to Dr. Baird and the Rev. W. Houghton, by whom the identification was confirmed. When Dr. Baird put some of them into strong spirits, the colour left them, and gave a fine green hue to the fluid. Mr. Houghton shows that Dubochet considered them entirely terrestrial, while Moquin Tandon asserts that he kept them alive in water for more than fifteen days. Mr. Houghton says that neither of the individuals sent to him seemed at all at home when placed in water.

PRESCRIBING IN CHEAP PERIODICALS.—A most dangerous practice prevails of publishing in some of the cheap literature of the day various receipts for the cure of minor ailments, and it is one that is certainly upon the increase. Many of the prescriptions so given are absurd, and even dangerous; and this is not to be wondered at if we consider that the writer is often very deficient in all real knowledge of medicine, and that he is assisted by the errors of the printer, to whom the symbols of quantities are so many hieroglyphics. Our attention has been called to the following prescription, for instance: “Syr. of poppies, one ounce and a half; syr. of squills, half an ounce; of tincture of digitalis, thirty drops; a teaspoonful to be given to a child frequently.” We can quite imagine a fractious baby being dosed into the effectual quietness of death by such a mixture. — *Lancet*.

TO CLEAN VERY DIRTY BRASS.—Rub some bichromate of potass fine, pour over it about twice the bulk of sulphuric acid, and mix this with an equal quantity of water. The dirtiest brass is cleaned in a trice. Wash immediately in plenty of water, wipe it, and rub perfectly dry and polish with powdered rottenstone.

CONGESTIVE HEADACHE.—Characterized by pallor of the countenance, dull eyes, dilated pupils, cold extremities, soft and feeble pulse. Give the fluid extract of belladonna, twenty drops to four ounces of water; teaspoonful every two hours. — *University Journal*.

CHILBLAINS.—One of the best remedies, is the free application of the strong tincture of capsicum.

TOOTHACHE.—A small piece of cotton wool, saturated with ammonia, and inserted into the cavity of a decayed and aching tooth, is said to afford instantaneous relief.

Notes and Queries.

T. C. asks regarding SYR. FERRI IODIDI.—“Is there any objection to pouring the iodide, without filtering, into the syrup, and allowing it to clarify by subsidence; it seems to me to keep better. I tried the addition of tartaric acid, but it caused the syrup to change color. I refer to syrup made with sugar.”

We see no objection to the omission of filtration, except non-compliance with the official directions. You are doubtless aware that the quantity of iron specified is much larger than is required for combination with the iodine; 28 parts of iron suffice for 126 parts of iodine, while the proportion ordered in the P. B. is 1 to 2, so that by using the unfiltered iodide, you have a large excess of metallic iron present, which, you rightly surmise, tends to preserve the syrup unchanged. We should prefer to filter the solution, and immerse in the syrup a strip of bright iron. Regarding the latter part of your note, we refer you to a paper on the subject in our present issue.

X. Y. Z.—COLOGNE WATER.—The following form is said to have been given by one of the Farinas, and was published as genuine in a German paper, a few years ago:—

Benzoin.....	2 oz.
Ol. Lavander.....	4 “
“ Rosemary.....	2 “
“ Neroli.....	
“ Lemon.....	a. a. 10½ oz.
“ Aurantii.....	
“ Limetta.....	
“ Bergamot.....	a. a. 21 oz.
Tinct. Flor. Geranium rosei. q. s.	
S. V. R.....	9 gals.

Add the ingredients to the spirit in the above order, and macerate for two weeks.

Constant Reader.—STAINSON GLASS.—These may be removed by applying a mixture of hydrofluoric acid 1 part; water 5 parts. The dilute acid should be applied by a tuft of cotton wool attached to the end of a stick; otherwise, the fingers might sustain injury. After the expiration of four or five minutes, wash well with water. Scratches in lenses, or spectacle glasses, may be rendered unobscurable by this treatment.