

the quantitative estimation of arsenious and arsenic acid separately, when both these substances are present. As regards the qualitative detection of arsenic in fuchsine, the author states that the pigments of that name tested by him, and obtained from various sources, all contain arsenic in some form or other. That this quantity is not small may be inferred from the results of the author's quantitative analysis, from which we gather that a sample of fuchsine obtained direct from a manufacturer contained, on an average, 2.073 per cent. of arsenous acid and 7.593 per cent. of arsenic acid. Another sample, obtained from a wholesale druggery, contained, on an average (several analyses were made), 1.008 per cent. of arsenous acid and 4.4705 of arsenic acid. This research was undertaken with the express view of testing the question, whether the use of fuchsine, as a colouring matter for syrups, sweetmeats, and the like, is or is not to be prohibited, as can be done in Prussia by a simple police order. It is quite evident that fuchsine should not be indiscriminately used for such purposes. —*Neues Jahrbuch für Pharmacie, von Dr. F. Vorwerk.*—*Chem. News.*

Gutta-Percha Vessels for Chemical Uses.

Erroneous views have been held and circulated concerning the durability of gutta-percha under the action of the various reagents. We are ordinarily told that it is absolutely unacted upon by cold mineral acids, with the single exception of the sulphuric at 1.6 sp. gr. and upwards. This is far from being the case. There is, indeed, no immediate corrosion, or other rapid and striking change; but in the course of time, the surface becomes overspread with a thin buff-coloured layer, which may easily be rubbed off. This change extends gradually deeper and deeper, till the whole mass loses its coherence and splits in various directions. I have before me a number of jugs which have been used for nitric, chlorhydric, and dilute sulphuric acids, as, also, for solutions of stannous, stannic, and ferric salts, and which in three years' service, have become quite worthless; on being sent for repairs to a dealer in such articles, they were returned with the remark that they "could not be mended, as they had been used for acids." I find that the disintegration in question can be very much retarded if the vessels are always rinsed in cold water immediately after being used.—*J. W. Slater, in Chem. News.*

Contribution to our Knowledge of the Bases Contained in Opium.

M. Hesse.—After referring to the labours of M. Merk, and his own former researches on this subject, the author describes meconidine, lanthopine, and laudanine. Meconidine, $C_{21}H_{23}NO_4$, is a rather readily decomposable compound in the presence of strong acids, and especially when heat is simultaneously applied; this base yields salts with difficulty, and these compounds are very unstable. Laudanine is readily soluble in benzole and chloroform, also in boiling alcohol, but difficultly soluble in ether and alcohol when cold; this base, although tasteless by itself, yields, with acids, very bitter salts; fuses at 165°, formula, $C_{20}H_{23}NO_3$; yields salts with acids; well-defined chemical compounds. Lanthopine, $C_{22}H_{25}NO_6$; this substance is best soluble in chloroform, difficultly so in alcohol, ether, and benzol; it yields with acids, salts. Thebenine, $C_{19}H_{23}ClO_6$

(formula of the hydrochlorate of this base), is an amorphous substance, and rather prone to decomposition. —*Annalen Chem. in Chem. News.*

Artificial Kirschwasser.

M. Reinsch.—The genuine alcoholic fluid of this name owes its flavour to the presence of a small quantity of hydrocyanic acid and ethereal oil of bitter almonds (hydruret of benzoyl.) The author suggests that, when a certain quantity of young leaves of the peach tree (a handful is named) is beaten up in a porcelain mortar, next digested with 4 litres of water during two days, and this mixture added to 2 litres of strong alcohol (94 per cent.), and submitted to distillation, and the distillate diluted with water to a strength of 60 per cent alcohol, a fluid is obtained fully equal in taste and aroma to the best Swiss kirschwasser made from cherries bruised up with the stones and kernels they contain. The author cautions against the drinking of too large quantities of this liquor; and so he may, since cases of accidental poisoning with this and similar alcoholic liquors (Persico among the number) are by no means rare. —*Pharmaceutische Zeitschrift für Russland, in Chem. News.*

Red Fire.

The *Pharmacist* gives the following formula for "Red Fire," which will not evolve sulphurous acid during combustion.

Nitrate of strontia, dry and in powder, 1 lb.
Chlorate of potassa in powder, $\frac{1}{2}$ lb.
Shellac, in coarse powder, $\frac{1}{2}$ lb.

These ingredients to be mixed by gentle stirring or sifting. On no account should they be rubbed together in a mortar, as an explosion would probably result.

Reduction of Angelic Acid to Valerianic Acid.

M. Ascher.—When angelic acid is heated to about 200°, along with hydriodic and amorphous phosphorus, for about eight hours, it is entirely thereby converted into valerianic acid, as was fully proved by the elementary organic analysis of the silver and baryta salts of the last named acid.—*Chem. News.*

Medical Properties of Eggs.

The white of an egg has proved of late the most efficacious remedy for burns. Seven or eight successive applications of this substance soothe pain, and effectually excludes the burn from the air. Extraordinary stories are told of the healing properties of a new oil which is easily made from the yolk of hens' eggs. The eggs are first boiled hard, and the yolks are then removed, crushed, and placed over a fire, where they are carefully stirred until the whole substance is just on the point of catching fire, when the oil separates and may be poured off. One yolk will yield nearly two teaspoonsfull of oil. It is in general use among the colonists of South Russia, as a means of curing cuts, bruises and scratches.

Notes and Queries.

S. V. R.—Fusel Oil, as obtained from the distillers, always contains a small percentage of alcohol, which may be got rid of by washing with water and subsequent distillation, until a constant boiling point of

270 F. is observed. The specific gravity of this product is .818; it consists, mainly, of amylie alcohol having the composition $C_5H_{12}O$, but nearly always contains traces of the fatty acids— as butyric, caproic and enanthylic. A purer product may be obtained by substituting milk of lime for the water used in washing. Amylic alcohol has, so far, received but limited use, it is an ingredient in certain burning fluids, and is employed as a source of valerianic acid; but there are, doubtless many useful purposes to which its solvent powers might be applied. Most of the resins dissolve in it, but its offensive and pungent smell will always be a hindrance to its employment. We have frequently been asked if it is not possible to deodorize it; this is of course impossible, but the odor may be modified and rendered less disagreeable by the action of certain chemical agents.

SHOE COUNTERS may be cleaned by the use of the following mixture, which must be sparingly applied by means of a rubber of cotton:

Oil Lim	1 pint.
Alcohol	4 oz.
Acetic Acid	4 "
Oil Terebinth	4 "
Antim. Murias	1 "

Trade Report.

Trade during the past month has been variable. The bad state of the roads, and the fact of farmers being busy getting in their crops, served to make it rather dull.

The spring fleet are coming in rapidly, and stocks are filling up, so that buyers may rely on their orders being fully executed, an undertaking which has been pretty difficult of accomplishment during the past month or two.

There has been a strong demand for Quinine, which has resulted in clearing out all the wholesale houses; and unfortunately, Messrs. Howard & Sons, the eminent manufacturers of this article, have, owing to large government orders, been unable to attend to their customers in this country. The changes in price have been few, as stocks on hand are light, and any alterations which may occur from this spring's importations will only be trifling.

Camphor has been in large demand at a much reduced price.

Dyestuffs are coming on at slightly reduced rates.

Paints and Oils are in brisk demand, and are all unchanged in price. In Machinery Oils there is an upward tendency, Olive and Lard being much firmer.

Spirits of Turpentine is very high. Other Naval Stores are a little easier.