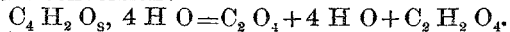


New Method for the Preparation of Formic Acid.—To prepare formic acid, Berthelot introduces into a retort capable of holding two quarts, two pounds of commercial oxalic acid, two pounds of glycerine, and about four or six ounces of water, and heats the mixture to a temperature not exceeding 212° Fahr., when soon strong effervescence takes place, and carbonic acid is evolved. In ten or twelve hours all the oxalic acid is decomposed, the half of its carbon expelled as carbonic acid; a small quantity of water containing formic acid has distilled over, and the residue in the retort is glycerine, which contains, dissolved, almost all the formic acid formed. For separation of the latter, a pint of water is added to the contents of the retort, and the distillation continued, accompanied by the continual replacement of the water evaporating from the retort, until about ten parts of the liquid have passed over, which then contains almost all the formic acid. The residual glycerine will again serve for the conversion of a fresh quantity of oxalic acid into formic acid. Three parts of oxalic acid yield rather more than one part of formic acid. The following equation explains the conversion:—



The formic acid prepared in this way is very pure, and free from oxalic acid.

Preparation of pure Silver.—Silver, when alloyed with copper, may be easily purified in the following simple manner, devised by Wicke:—The alloy is dissolved in nitric acid, the excess of acid expelled, the solution diluted with water, and both oxides precipitated with an excess of carbonate of soda. Both carbonates are then reduced by boiling with a solution of grape sugar—the oxide of copper to suboxide, the oxide of silver to a metallic state. The reduction begins at once, but the boiling must be continued for some time, to reduce with certainty all the carbonate of silver. The precipitate is filtered, and treated, while still moist in the heat, with carbonate of ammonia; the copper dissolves out, and the silver remains behind pure. The treatment with carbonate of ammonia is repeated as often as its solution acquires a blue colour. The boiling with grape sugar requires about ten minutes.

Correspondence.

“Audi alteram partem.”

ON THE DETECTION OF STRYCHNINE.

To the Editor of THE LANCET.

SIR,—As most mischievous statements regarding the detection of strychnine have obtained publicity, we think it most important that it should be known that strychnine cannot evade detection. We have separately and conjointly made numerous experiments with regard to the discovery of the above-mentioned poison under all circumstances of *reputed* difficulty.

The results of, and the method employed in, our experiments, cannot with propriety be communicated, as they are now under the consideration of Government; but, with as little delay as possible, we shall have great pleasure in forwarding you the details.

We are, Sir, your obedient servants,

J. E. D. RODGERS,
Lecturer on Chemistry at the St. George's
School of Medicine.

G. PROUT GIRDWOOD,
Assistant-Surgeon Grenadier Guards.

THE TESTS FOR STRYCHNIA.

To the Editor of THE LANCET.

SIR,—So many inconsistencies and inaccuracies have lately appeared in the public papers respecting the discovery of strychnia in the dead body, that I think it right to say that there is not any material with which it can be mixed in the animal body, or process of putrefaction, that can in any way interfere with its extraction and recognition. Tartar emetic, common salt, a little nitre, bile, sugar, and a score of other things will destroy its reaction when the tests are performed by those who are not acquainted with the principles of chemistry, but in the hands of the adept such difficulties are instantly overcome.

As to the so-called fallacies of the colour-tests for strychnia,

these also are fallacies only when the tests are improperly performed. But to do away with all possible sources of doubt and fallacy from the action of external re-agents, I may state that the putting of a little strychnia, with sulphuric acid, on a piece of platinum foil, then connecting the foil with the positive pole of a single cell of Grove's or Smee's battery, and touching the acid with the negative pole, terminating in a piece of platinum wire, the violet colour so characteristic of strychnia is instantly produced.

This mode of experimenting was suggested by the fact that the colour tests for strychnia are due to the action of nascent oxygen; and so delicate is the galvanic test that it will discover the presence of the 10,000th of a grain of strychnia; and, besides this, its very nature is such as to do away with all possible sources of fallacy.

I remain, Sir, your obedient servant,
College Laboratory, London Hospital, H. Y. LETHEBY.
June 11th, 1856.

“SHOULD STRYCHNIA BE EMPLOYED AS A MEDICINE?”

To the Editor of THE LANCET.

SIR,—There is a letter in your impression of the 31st ultimo which I should be sorry to see remain unanswered, inasmuch as it expresses a doubt, which certainly is not entertained by the profession as a body. To be silent is to give consent in such a question, and I fear lest the public should imagine their medical advisers to be too ignorant or too timid to employ a remedy which, nevertheless, from a love of *edge tools*, they have not the honesty to expunge from the pharmacopœia. To prevent members of our profession from having ready access to every possible form of poison, is a consummation to be neither wished for nor attempted; and I, for one, cannot admit that the recent atrocities of William Palmer teach anything more than that the drug should be secluded from the general public. Legislation always has failed, and always will fail to prevent crimes of this nature; educated persons, and those who are engaged in any pursuits collateral to medicine, can easily elude such clumsy expedients for the restriction of the distribution of poisons as we can devise.

But the portion of your correspondent's letter to which I would give a most unqualified contradiction is that in which he says, “Many of the medicines used in the healing art are so (i. e. deadly poisons); but then the nature of their operation is such, that if arrested or guided by the hand of science, the most beneficial results may be obtained from them; but in the action of strychnia, this is not the case: there is not one of the effects that it exhibits in its rapid career that can be made thus available.” And again, “The peculiar tetanic spasm that it produces led its discoverer, I believe, to anticipate from it a remedy for paralytic affections. Had this been the case, its retention in the pharmacopœia might be justified, but I fear that the profession has found this to be a fallacy.”

With regard to the first passage quoted, I would remark; that to speak of the *rapid career* of strychnia is to introduce an idea in connexion with its effects which does not apply to medicinal doses. The effects we produce, and desire to produce, are gradual, and the means used for attaining this object are exactly similar to those employed in the case of other powerful agents, viz., minute doses, and repetition at carefully appointed intervals. The second passage, which expresses an *opinion* that strychnia is useless in paralytic affections, is opposed to the following *fact*:—Of 97 cases of hemiplegia or paraplegia collected by Bayle, or treated by Dr. Bardsley, jun., 59 got quite well, and 25 greatly better.

A third quotation appears to me to embody Mr. Nichols' belief more distinctly even than the former two; because it requires, in fact, some little ingenuity to extract a meaning from such an expression as the *rapid career* of strychnia. “That it may, in very minute doses, in combination with other agents, produce some beneficial effects in the functional derangements of certain organs, may be possible, though I am inclined to doubt it; but these effects are equally attainable from other medicines, and certainly do afford no excuse for its use.”

It would be difficult to enumerate all the valuable therapeutic or physiological actions of strychnia of which advantage may be taken in the short compass of a letter. I will therefore only recall a few instances in which its powerful and peculiar effects may be made of use.

1. It is an undoubted antiperiodic: as such, it must eventually supply in part the place of quinine, of which an enormous