With the sulphuric, nitric, phosphoric, hydrochloric, acetic, citric, and tartaric acids, glycerine unites in all proportions; and the same with the caustic alkalies and some salts, as the hypochlorites of soda and potass. Most of the metallic salts soluble in water are to about the same degree soluble in glycerine; some, however, are decomposed, as the bichromate and permanganate of potass.

B. Organic substances, alkaloids, &c.

100 parts of glycerine dissolve—

Morphia	0·45	Quinine... ..	0·5
Muriate of morphia ...	20·0	Sulphate of quinine ...	2·75
Atropine	3 0	Cinchonine	1·5
Sulphate of atropine ...	33·0	Veratrine	1·0
Strychnine	0 25	Brucine... ..	2·25
Sulphate of strychnine.	22·5	Codeine... ..(all proportions)	
Nitrate of strychnine ...	4 0		

Watery extracts of vegetables are very soluble in glycerine; whilst gums, resins, essential oils, ethereal extracts, camphor, balsams, fatty acids, are either wholly insoluble or sparingly soluble.

The internal uses of glycerine, either alone or in combination, or as a vehicle for active substances, await further investigation.

Notwithstanding that we are told the quantity of glycerine used in the hospitals of Paris increased from 300 pounds in 1851 to 3000 in 1861, we fear the demand for glycerine for therapeutic purposes will fall very far short of the amount produced as a residue in candle making, when this is reckoned at hundreds of tons per annum. That the demand for it will greatly increase as its value becomes recognised there is no doubt. If the price could be considerably reduced, the consumption would be much larger.

GRANULATED EFFERVESCING AMMONIO-CITRATE OF IRON.

We noticed in a former number Messrs. Savory's preparations of mineral-water salts. The same principle is applied to various salts of iron. They are mixed with a small proportion of tartaric acid and soda, and granulated. This condition certainly renders them very convenient to handle and administer, and very pleasant to take. What influence is the tartrate of soda likely to have on the tonic, or rather nutritive, action of the iron? Will it at all counteract it?

CINCHONINE.

To the Editor of THE LANCET.

SIR,—During the last three years I have had the medical care of about a thousand of the navvies and others employed on the Great Northern Outfall Works; and, from the low, marshy district in which a great part of the works have been carried on, I have had to treat a very large per-centage of fevers of the intermittent type. I have tried quassia, arsenic, &c., with a view to economize quinine; but in the majority of cases I have had at last to have recourse to that very effectual but costly drug. Some time back, whilst lamenting this to a professional friend, he suggested the use of the "muriate of cinchonine," as a less expensive article, and one well worthy of a trial. Upon this recommendation, I obtained a supply from the Messrs. Howard, of Stratford; and, being anxious to avoid falling into error, kept a careful register of the cases so treated. The results have been so satisfactory to me that I have enclosed you a condensed account of a few of the cases, which I trust you will deem worthy of publication, as I should be very glad to have my experience of the muriate endorsed by others.

I am, Sir, yours obediently,

C. G. TAYLOR, F.R.C.S., &c.

Great Northern Outfall Works, Nov. 1863.

*Report of Cases treated by Messrs. HOWARD & SONS'
Muriate of Cinchonine.*

1. W. M'Q—; ague. One grain of muriate of cinchonine increased to three grains for dose. Well in six days.

2. Robert L—; ague. Two grains of muriate of cinchonine for dose. Well in four days, after being treated unsuccessfully with various other medicines.

3. Mrs. H—, aged twenty-four (July 15th); quotidian ague. Five grains of muriate of cinchonine three times a day. Cured in four days.

4. Mrs. B—, aged twenty-nine (July 15th); ague and severe headache. One scruple of calomel and jalap, and three grains of muriate of cinchonine, every six hours. On the 18th much better; less headache. Repeat four grains every six hours.—24th, quite cured.

5. Geo. B— (June 24th); typhoid fever. Three grains of muriate of cinchonine for dose, continued to July 5th, by which date the patient was rapidly convalescent.

6. R. B—; variola. After febrile symptoms had subsided, gave two grains of muriate of cinchonine every four hours from July 2nd to the 14th, on which day he went to work.

7. R. S—; variola. Gave two grains of muriate of cinchonine three times a day from July 7th to the 20th, when he left convalescent. This remedy seems likely to be beneficial in improving the condition of the blood in variola, after the eruption has been established.

8. Geo. J—; abscess. Wound did not heal nicely under treatment, so tried two grains of muriate of cinchonine three times a day from the 26th of June to the 13th of July, when he went to work. Ulcer not quite healed, but much better; granulation healthy, and not too profuse.

9. Wm. D—; low fever. This case was treated entirely with muriate of cinchonine. The man went to work in six days.

10. A. S—; intermittent fever. Had been under treatment eight days. Tried four-grain doses of muriate of cinchonine every four hours. In five days he went to work.

Correspondence.

"Andi alteram partem."

THE ANALYTICAL SANITARY COMMISSION.

MEDICINES, THEIR IMPURITIES AND ADULTERATIONS.

SPIRITUS ÆTHERIS NITRICI.

To the Editor of THE LANCET.

SIR,—In the report of your Analytical Sanitary Commission in last week's LANCET some questions are raised the discussion of which, if admitted into your journal, would, I feel assured, be acceptable to many of your readers. The composition, preparation, and preservation of sweet spirit of nitre are subjects which have frequently occupied the attention of chemists and pharmacutists; and the condition in which this medicine is often met with in commerce has even more frequently formed matter of complaint with medical men and others. This preparation as supplied for use in medicine is either found to be little more than pure spirit with merely a slight flavour of nitrous ether, or if it contain a larger proportion of the ethereal constituent it is liable to have an undue quantity of free acid and aldehyde in addition. Since the introduction of methylated spirit, this has been largely used in the manufacture of sweet spirit of nitre; and the products thus obtained are often so contaminated with the empyreumatic impurities of the spirit that they are quite unfit for use in medicine. Your report clearly indicates the extent to which this contamination occurs, and one of the questions I shall hope to see discussed in your pages is that of the use of methylated spirit in the preparation of medicines intended for internal administration. The best means of preventing the production of aldehyde in the preparation of sweet spirit of nitre; the proportion of nitrous ether that ought to be present; and the means best suited for preventing or retarding the decomposition of the ether and the production of free acid,—are questions very important in a practical point of view, and with reference to which some differences of opinion exist. Those who are satisfied with the process of the London Pharmacopœia, and with a product the specific gravity of which is '834, must not expect to have anything more than a very mild preparation, with an extremely small proportion of ether in it. I know from experience that the London process, without altering the ingredients or their proportions, may, by merely varying the method of conducting the distillation, be made to yield a product much richer in nitrous ether, and therefore having a higher specific gravity, than the Pharmacopœia indicates. Your report shows that most commercial specimens have a specific gravity above '834, and I think it would be unfair to conclude that this is due in all cases to the presence of water. Pure nitrous ether has a specific gravity, according to Liebig, of '947; and the presence of an increased quantity of this ether

in the spirit will therefore, as well as water, add to the density of the mixture. Thus the sweet spirit of nitre of the Edinburgh Pharmacopœia, in which there is no more water, but in which the proportion of nitrous ether is much greater than it is in the spirit made by the London process, has a density of .847.

The uncertainty of the product obtained by the London process, and the liability to change in the products of other processes, present such serious objections to the methods hitherto adopted for producing sweet spirit of nitre, that the space devoted to the free discussion of the subject would not probably be misapplied if it resulted in the suggestion of an improved method by which greater uniformity and stability could be ensured.—I am, Sir, yours obediently,

T. REDWOOD, Ph.D.,

Professor of Chemistry and Pharmacy to the
Pharmaceutical Society of Great Britain.

Montague-street, Nov. 1863.

* * The process given in the Edinburgh Pharmacopœia for the preparation of spirit of nitric ether differs essentially from that of the London College, and hence the difference of specific gravity of the product. In reference to the last paragraph of Dr. Redwood's letter, we may state that the forthcoming Pharmacopœia will contain a new, and we believe a less objectionable process for the preparation of the spirit of nitric ether than the one contained in the present edition of that work.—ED. L.

To the Editor of THE LANCET.

SIR,—I see in THE LANCET that my name figures with many others as an adulterator of Spiritus Ætheris Nitrici. Now, I certainly plead guilty, and offer as an excuse the very low prices at which the public wish to purchase drugs. We are compelled in many cases to keep two different articles—one for prescriptions, according to P.L., and the other for retail. For instance: to make two pints of compound tincture of aloes, the saffron in it alone would cost at the present price eight shillings. Now, how is this tincture to be sold at fourpence per ounce? And the same with many other articles. I frequently ask people if they think physic is as cheap as beer. I keep one spirit of nitre according to the Pharmacopœia, and the other I make thus:—Spiritus ætheris nitrici, 28 oz.; aq. distill., 4 oz. I sell this at three drachms for a penny, or threepence per ounce. The best we sell at fourpence per ounce. So you see there is but a little addition of water. I assure you that an East-end druggist has plenty to contend with. The linendraper sells perfumery, the grocer fancy soaps, and the oilman drugs. What would a West-end druggist say at selling a quarter of a pound of sulphate of magnesia for threehalfpence, or making up an eight-ounce mixture for sixpence?—and it is done here in the vicinity. I am on my feet (and queer ones, too) from seven o'clock in the morning, and frequently look into the till in the afternoon and find only six or seven shillings; yet I frequently hear people going by remark that "this is the shop for business; there is always some customer in." Last Saturday I took an account of the customers who came in. I served 212 persons. Out of that number there were 145 penny customers. Now, a grocer or cheesemonger would have taken as many shillings. I think that I have given you some insight into a drug business; and as to adulterations, I am certain that there is but one article in this shop, and that is pulv. rhei, sold by wholesale druggists to us, and composed, *they say*, of one pound of English rhubarb to two pounds of fine East India rhubarb; but I keep the genuine also.

I am, Sir, your obedient servant,

New-road East, Nov. 1863.

F. WHITE.

P.S.—Should any of you gentlemen call and make himself known to me, I should be most happy to be of any service that lies in my power.

* * The pharmaceutical chemist is, doubtless, in many cases exposed to sore temptation arising from unscrupulous competition carried on by means of adulteration; nevertheless the practice, even when only adopted in self defence, is fraught with danger to the medical profession and the public. Although advocates in most cases of free trade, we do not see how this can be tolerated in the sale of medicines, or how we can safely leave each chemist to mix up and prepare pharmaceutical preparations as he pleases or in such forms as facilitate their disposal. Indeed, we are inclined to hold the opinion

that all pharmaceutical preparations ought invariably to be made according to the formulæ laid down in the Pharmacopœia, and in those only. We must not forget also that if pure drugs cost more than the adulterated, they go further; so that in the end, even when a reduction in price is made in consequence of adulteration, it is very questionable whether the public are gainers even in a pecuniary sense by this injurious and reprehensible practice.—ED. L.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

IN our literary world here the news is more than usually important, new works and new editions of old works being in active preparation. Probably before this letter appears in print, a new work on Chemistry, confined however to the history of the metalloids, will have issued from the press, from the pen of Dr. Apjohn, the distinguished professor of chemistry in the University of Dublin. His reputation as an accurate and accomplished chemist makes us all here look forward with great interest to its appearance, the impression being that it will materially add to the reputation of the Dublin School of Medicine. It is intended to form one of Galbraith and Haughton's educational manuals, and will be uniform in size with the existing works of this series. Mr. Maurice Collis, surgeon to the Meath Hospital, also, I understand, has a work ready for the press; its title will be "The Diagnosis and Treatment of Cancers, and Tumours analogous thereto." This gentleman, by his writings, has already made himself a reputation upon these subjects. Prof. Churchill is actively engaged in bringing out a new edition of his work on the Diseases of Women. A reprint of our great Graves's Clinical Medicine, edited by Neligan, is at press; this will be merely a reprint, the only matter not contained in the last edition being a translation of Trousseau's preface to the French edition. Dr. Frazer is engaged on a new edition of his Materia Medica. Mr. Rawdon Macnamara, professor of materia medica in the College of Surgeons, is preparing for the press the Sixth Edition of Neligan's "Medicines, their uses and modes of administration." This gentleman was selected for this duty by the lamented author himself, many months previous to his untimely death. Had Dr. Neligan lived, he would have taken his share in the work; as it is now, the entire labour falls upon Mr. Macnamara's shoulders. I have also heard it rumoured that Mr. Butcher has it in contemplation to bring out in a more permanent and connected form his valuable and most interesting contributions to Surgery, which, in the pages of the *Dublin Quarterly Journal*, have gained such reputation for their talented author. So that upon the whole it must be confessed that the members of our profession upon this side of the Channel have been anything but idle during the summer recess.

In the summary of medical news that appears in your last week's number, you mention that Dr. Cameron's salary as City Analyst had been fixed at £100 per annum. This is correct, but it was only carried after a protracted fight, and upon the final occasion by a division in the Corporation, when 20 supported the measure and 16 opposed it; but of the minority eleven were bakers, grocers, or parties intimately connected with these interests—the very trades in which the lower orders can turn the services of such an officer to the best account; and, perhaps, "hinc illæ lachrymæ." Not that I would wish your readers from this to infer that our tradesmen have arrived at that refinement in swindling which the columns of THE LANCET so perseveringly and, I trust, so successfully exposed some years back. Far from it; but I think opposition coming from such quarters carried a queer appearance indeed.

Dublin, Oct. 17, 1863.

THE GENERAL MEDICAL COUNCIL.—The Master and Wardens of the University of Durham, at a Convocation held on the 27th ult., re-elected Dr. Dennis Embleton, F.R.C.P., for the period of five years as their representative on the General Council of Medical Education and Registration of the United Kingdom.—The Governor and Company of the Apothecaries' Hall of Ireland have unanimously re-elected for the period of one year Dr. Charles Henry Leet as their representative on the General Council of Medical Education and Registration of the United Kingdom.