most,—the plan itself, its modification, its defence, or the able and disinterested argument used to the Council to induce them to adopt it. "Argus" defends and argues thus:—"I am sure the College would not be disgraced by such an act, and their coffers would be greatly improved."

That the decorated bird of the unfortunate Juno should plead for his additions being given to aid the natural plumage of his unostentatious neighbour, is an act of generosity never to be forgotten; and if the Council of the Royal College refuse to listen to this friendly voice, perhaps when their impending fate is impregnably sealed, they may regret their decision. Rival colleges there are, and will be. The University of London may flourish at the expense of the Royal College of Surgeons; and if the Council of this College cannot very shortly "boast of having within their pale all the general practitioners of the country," woe betide them.

Without doubt the supernatural vision of "Argus" has enabled him to see all this, and to perceive that as long as there remains a single educated man in the profession who has not carried his obulus to the needy Charon, there will be danger to all existing institutions. The numbers of the dangerous ones will be increased, too, by all the youths who object to compulsory fees—the burial fees of the priests; and the hundred years of purgatorial perambulation will be occupied in cursing those their tormentors who made and who upheld such unjust laws.

N.B.—There are so many ragged ferrymen at the present time, that it becomes a very important question, which is the true Charon?

But let not "Argus" imagine that all the discontented have imbibed the jealousy of his old employer, or that they are ready to do the murderous bidding of the implacable Jove, by an onslaught on his "celebrated hundred." He should understand, however, that there are birds who do not set a very high value on peacocks' tails; that there are professional men of "high anatomical, pathological, and other scientific acquirements," who do not look upon our Royal Colleges as the fountains of all professional honour; and that there are apothecaries to be found who are not inclined to endanger the rights and liberties of those who may come after them, by accepting any trumpery bauble which may be offered them, as a compensation for the want of just and upright laws.

Sir, for my part I am too old to be benefited by the beneficent designs of "Argus," and were it not so I should hope to remember the valuable lessons I have learnt in the pages of your journal—lessons which I trust our young men will frequently peruse, and seldom forget. They contained such principles as these, and in the promulgation of them we ought all to feel concern:—

1. That individual worth is of much more consequence than corporate connexion.
2. That the divinity within us is not to be bartered for a seat at the rich man's table.
3. That in spite of all selfish schemes, public justice, even as regards the laws which regulate the profession of medicine, will ultimately prevail.

With an apology for the length of this communication, which I thought but due to the times and "Argus," I remain, Sir, your very obedient servant,

Monday, June, 1851.

AN AGED APOTHECARY.

BULLOCK'S SEMOLA—ITS DIFFERENCE FROM SEMOLINA.

To the Editor of THE LANCET.

SIR,—The importance and interest of the reports in your journal, on the adulteration of food, cannot be questioned, but permit me to observe that in order to effect any permanent benefit, it is indispensable that every statement they contain should be scrupulously accurate. In your number for June 21, 1851, in treating of semolina and Bullock's semola, your Report contains several mistakes, which, with your permission, I wish to correct, not merely for my own sake, but also for the interests of the science of chemistry. Valuable as the microscope is in these researches, every chemist knows that the evidence it furnishes respecting the composition of food is limited and partial, and serious errors must necessarily arise from neglect of the chemist's especial method of investigation, namely proximate and ultimate analysis, the only safe guide in dealing with substances devoid of crystalline or other definite forms.

To employ the term *analysis* to designate a merely microscopic examination of a body, is to depart from the accepted language of science, and to introduce confusion into

arguments where distinctness and accuracy are of the highest importance.

In your article it is said, under the head Semolina—"This preparation consists of the gluten of wheat, with a certain proportion of the STARCH, part of this having been removed." Under Bullock's Semola:—"Between this preparation and semolina there is the greatest resemblance—in fact, they appear to be identical." Now, it is perfectly well known that the semolina of commerce consists simply of minute fragments of hard varieties of wheat, prepared by coarsely grinding the grain, and sifting. Hence it can never contain more gluten than the wheat itself from which it is prepared. I have repeatedly subjected semolina to ultimate analysis, and have found it yield a per-centage of nitrogen corresponding to from fourteen to sixteen per cent. of gluten. *None of the starch is removed in the process of preparing it*, and under the microscope it presents simply angular fragments, preserving the organized condition of the grain itself. This I deem an objection to its use for infants and delicate stomachs.

In order, however, to speak with more certainty, I obtained some semolina from Mr. Revell, 272, Oxford-street, and subjected it to examination. This sample presents, even to the naked eye, a totally different appearance to my semola. It appears to be an admixture of true semolina and something else. On ultimate analysis it gave an amount of nitrogen corresponding to twenty per cent. gluten. Moreover I found it to be sour, and to contain *weevil*. Probably it is a mixture of semolina and gluten. Many attempts have been made to render the waste gluten of the starch manufacturers available as food, and several articles are in the market under the designation of *gluten granules*. On repeated analysis of samples of these articles I have found them vary from eighteen to twenty per cent. of gluten, and invariably sour and totally unfit for use.

The ground on which I offered a new food to the profession and public under the name of "Bullock's Semola," I stated fully in my papers published in THE LANCET, No. 24, for 1849, and No. 10, for 1850. I conceived it to be of the greatest importance to produce a food which should be uniform in composition, and after many experiments I determined that fifty per cent. of gluten is the highest amount which, while it cooks well, is most congenial to the stomach. In order to produce this food, I had to reverse the practice of the manufacturer, that is, I had to make the gluten the first object, and to treat starch as a residue. Wheat gluten is extremely apt to run into decomposition; to prevent this we are obliged to operate on small quantities of the very finest flour, and to combine with the separated gluten nothing but flour of the finest quality; every parcel produced is subjected to ultimate analysis, and I have pledged my reputation that semola shall be uniform in composition, containing nothing except the elements found in the finest wheat, *and including 50 per cent. gluten*. So prepared, and with such materials, its composition, and I must add, its *appearance*, is altogether different from any sample of semolina I have yet seen, and is totally different from that which I obtained at the shop indicated by your commissioner. In an article of food not having a crystalline form, the profession must of necessity depend upon the character of the person preparing and offering it for sale. I claim for myself the merit of being the first to prepare an article with gluten uniform in composition, and not liable to turn sour—a preparation on which the profession may implicitly rely. If any one thinks that a few per cent. more or less of gluten is advisable, he has only to mix my semola with wheat-flour, or, having all the necessary means, I shall be happy to furnish to any gentleman a preparation with a *greater* proportion of gluten, if it be deemed advisable to try such a food in any special case of disease.

In conclusion permit me to add, that before offering my semola to the profession generally or to the public, many eminent practitioners put it to the test of experience in their own families, for their own use, and with patients where they could watch its effects, and their testimony to the results were uniformly satisfactory. It has received the highest encomiums, not, indeed, as a sole remedy for any disease, but as a highly valuable adjunct to the treatment. Infants have been wholly fed on it, delicate children have been obviously strengthened, and mothers have always found it increase the supply of milk, while it maintains their own physical energies.

As with medicines, so with food, I apprehend the profession should carefully abstain from recommending compounds the nature of which they do not know. I make no secret of the nature and composition of semola. Every practitioner, far better than I can pretend to do, can discriminate when a highly

nutritive vegetable food is likely to be available, and I commend it to their attention simply for what it is—which they always may be sure is as I distinctly and constantly state in my printed description.

I remain, Sir, your obedient servant,
Conduit-street, July 3, 1851. LLOYD BULLOCK.

* * In the Report in question, our commissioner stated that Mr. BULLOCK's semola consisted chiefly of the gluten of wheat, with a small proportion of starch. We now learn from Mr. BULLOCK himself, that *one-half* of the article consists of wheat-flour. Mr. BULLOCK observes,—“It is well known that the semolina of commerce consists simply of minute fragments of hard varieties of wheat, prepared by coarsely grinding the grain, and sifting;” also, “that none of the starch is removed in the process of preparing it.” We shall shortly have some remarks to offer on the manufacture of semolina, when it will become evident to what extent this description of the method of preparing that article is correct. Such, according to Mr. Bullock, being the composition of semolina in general, he yet admits that the sample of this article examined by our commissioner contained an amount of nitrogen corresponding to no less than twenty per cent. of gluten. The fact of there being articles in the market designated “gluten granules,” and consisting chiefly of gluten, clearly shows that there is nothing new in the principle on which semola is prepared. Semola, although usually somewhat different in colour, precisely resembles semolina in granulation, in becoming glutinous on admixture with water, in its structure as detected by the microscope, as well as very closely in name. We therefore see no reason to modify the original remark of our commissioner, that the two articles *appear* to be identical;—that they are absolutely so was not asserted. Mr. Bullock commenced his letter by stating that our Report contained “several mistakes,”—where, we ask, is the proof of these alleged mistakes? Our commissioner has already established his fame on a firm basis, and the accuracy of his analyses and the impartiality of his selections are subjects of universal admiration.—*Ed. L.*

VACCINATION AND SMALL-POX.

To the Editor of THE LANCET.

SIR,—The following remarkable and highly interesting case occurred during my practice in the year 1824, one year after the publication of your invaluable journal; but I had not any desire at that period to interfere with your arrangements, or to obtrude myself upon the space of your then valuable columns, which have since become doubly more valuable from the long period which it has been in existence, and the very great and rapid progress it has made in medical literature. I have steadily taken in the journal from that period down to the present hour, therefore I am fairly entitled to speak of its merits as a medical work, and it does, without contradiction, stand upon the record as one of the best, one of the most useful, and one unequalled by any publication extant. Therefore I hope no other apology will be necessary for the purpose of introducing the case as above mentioned, particularly as the claims upon vaccination are at the present time disputed, or attempts made to lessen the value of its influence.

The subject of this communication was a female manumitted slave, brought from the Bahamas by a very excellent and pious person, the Rev. Mr. Wilson, one of the missionaries to those parts. The poor creature had lived in his family as servant over a period of seven years, and for her service he paid over to the slave-holder four dollars per month. She soon became attached to the family, and more particularly to the children, so that Mr. Wilson was anxious to bring her to England, and he could only do so but by paying the manumission money, which amounted to £100, which was paid April 2, 1824. She arrived in England with the family early in June, and soon after came to Winchester.

The small-pox was raging most furiously, pervading and invading almost every dwelling and every locality where it could find a victim to fasten upon, devastating and destroying to a very considerable and alarming extent, for the character of the poison was virulent in the highest degree, and where it became fairly developed it speedily exhibited its destructive

powers, and the poor victim of its attack soon became prostrated.

Yet, nevertheless, although vaccination was carried forward with zeal and determination by the practitioners of, and out of the city, yet very numerous casualties followed; for it was found difficult to check the disease in time.

Now, about this time, one of the children became attacked who was under the care of the poor creature; I being sent for, immediately vaccinated her, as well as the children, and I had flattered myself that all would have escaped the dire plague; but not so—the poor black, although her arm presented almost magnificent specimen of vaccination, yet the virus of small-pox soon manifested itself, and she soon came under its baneful influence; the skin became loaded with pustules, clustering together and presenting the true confluent type; every portion of the body became swollen, the features presented a most horrid spectacle, combined with the colour of the skin; you could scarcely imagine you were contemplating the death of a human being; the limbs soon after were covered with large vesicular masses extending from head to foot, and as soon as one was ripped up, to allow the fluid to escape, so soon again were you called to perform the like act again; the fluid was of a dirty white colour. She soon became restless, and delirium soon supervened, and a few days longer her sufferings were relieved by death.

The singularity of this case consists in the dormant power of the virus of small-pox remaining in that state until vaccination had claimed the first position. And it is very probable that the poison was imbibed both by the child and the servant at the same time; yet its influence on the child was soon exhibited, and if a due absorption of the vaccine virus had entered the constitution so as to have given the system a protective quality and power, I do verily believe the attack of small-pox would have been greatly modified, if not counteracted altogether.

I think vaccination, to be effective, ought to be done by matter obtained from the original source of its formation. I have never vaccinated unless genuine from the Institution, and do not recollect any attack of small-pox afterwards.

I am, sir, your obedient servant,
Winchester, 1851. JAMES FORDER, M.R.C.S.

OPIUM-TAKING.

To the Editor of THE LANCET.

A CORRESPONDENT in a late number of THE LANCET requires to know the best method of weaning a patient from the bad habit of opium-taking: I can afford him a little personal experience upon the subject. About twelve years ago I had for five or six years been suffering under great mental and bodily pain, and from repeated and great losses of blood had become completely anæmiated, with great dyspnoea, palpitation, oedema of the legs, &c.; and finding that nothing but opium would enable me to go through the professional duties of the day, that of necessity became my only comfort, and daily I took six grains of muriate of morphia, and frequently when up a great part of the night attending a case of midwifery, the quantity would amount to nine grains in twenty-four hours. After six years of suffering I underwent a severe operation, which happily relieved me from my bodily pain, and my health and strength so rapidly recovered that I was enabled to leave off the morphia almost immediately, by merely occasionally taking about half a grain, and supporting myself with frequent doses of sulphuric ether; in this way, at the end of three weeks I was well, and freed from opium. But I would not recommend so rapid a proceeding to anyone else; I was sometimes almost frantic, and in a state of delirium tremens, which I was enabled to ward off entirely by a timely dose, and making blood very rapidly. I got through it that time quickly. I remained for eight years without opium, until, about four years ago, I unfortunately had a sharp attack of English cholera, with very considerable hæmorrhage, and I was compelled to fly to morphia. In three days all the dreadful accompaniments of opium-taking had returned, and nothing less than four grains of muriate of morphia would satisfy me, and by that single illness my health and strength were so shaken that I could not leave off any opium until about six months ago, when I became much restored, and of course began to reduce the opium; but by degrees, and am now only taking one grain, which I have no doubt will very soon be got rid of. The means of leaving it off now are very different to the last, and I would strongly recommend the same to any one under similar circumstances. I make a large bottle full, (three