bilitates the stomach like salts, nor irritates the rectum like aloes. I am clearly of opinion that this medicine deserves a high place among our cathartics. If you desire it, I will send you a quantity of this bark. I intend to make some experiments upon its extract.

Did you ever notice the account of an extraordinary case of a girl from whose face and under the eye, blood, flesh, and bones would occasionally issue, which I communicated to Dr. Chapman? If not, let me refer you to the 20th No. (No. 2, new series) of the Philadelphia Journal of the Medical and Physical Sciences, 1825. I have nothing to add to nor take from the account there given. The subject of the phenomena still lives in this vicinity, is married, and the mother of a family. The facts of the case are susceptible of the clearest proof, and should, I think, be preserved, as they may some day throw light on the physiology of the female system.

CH. FULLERTON.

Owensville, Indiana, July 3, 1836.

POWER OF COMBUSTIBLE SUBSTANCES FOR PRODUCING HEAT.

TRANSLATED FROM THE JOURNAL DE CHIMIE MEDICALE, DE PHARMACIE ET DE TOXICOLOGIE, BY J. CHICKERING, M.D. BOSTON.

AS COMBUSTIBLES are daily becoming more expensive, on account of their great consumption in the arts, it is important to ascertain their composition and properties, in order to use them in the most economical manner in producing heat.

The method employed for determining the calorific power of combustibles, rests on this hypothesis, which all the facts tend to prove, viz. that the quantity of heat evolved during combustion, is proportional to the quantity of oxygen absorbed, and it is reduced to estimating this quantity of oxygen by the weight of the lead which different combustibles give when we burn them by means of litharge.

This is the process: we take one *gramme** of a combustible substance reduced as fine as possible; if it be coke, reduced to an impalpable powder; if wood, to fine saw-dust, or rather rasped to small grains. This powder is mixed with from 20 to 40 grammes of litharge, a quantity a little larger than that which will be reduced; we know nearly this quantity, from the nature and appearance of the combustible. We first put this mixture into an earthen crucible, and then add 20 or 30 grammes of pure litharge: this crucible should be half full at most; we place it in the calcinating stove already heated, and filled with ignited charcoal; we put on the lid, and heat gradually. It softens, and boils, and sometimes it boils over. When the fusion is complete, we cover the crucible with charcoal, and give it a current of flame, which is continued long enough to cause the excess of litharge to form glass by melting the silex of the crucible, but being careful not to allow the crucible to be perforated. When the crucible is cold, we break it, and the button of lead is separated at the first blow; this no longer adheres to the dross, which is

* A French *gramme* is equal to 15.4327 English grains.

silicated, while the pure litharge will not only adhere to it, but penetrate it in some degree, and sensibly increase its weight. The carbon will produce, with the litharge free from *red lead*, 34 times its weight of lead. We can, from these data, find for any combustible, its equivalent either of carbon or of hydrogen, in respect to the calorific effect.

When a combustible contains volatile matter, we immediately learn the proportion by analysis; besides, if we seek the proportion of lead which it gives with litharge, it is easy to calculate the equivalent in the carbon of volatile matter, and consequently to find the calorific value of the substances which are disengaged from a combustible, by submitting it to carbonization. These values, arrived at in so simple a manner, are interesting, and are adapted to make known the relative value of different combustibles, and the best use to be made of them.

In order to express the calorific power of combustibles, we have generally adopted an unit, called the *caloric unit*, which denotes the quantity of heat necessary to warm one degree an amount of water equal to that of the body. When we know the proportion of lead which a combustible gives with litharge, it is easy to calculate its calorific power in *caloric units*, since we determine, by direct experiment, the amount of water which the charcoal will warm one degree. This amount is, according to M. Despret, 7815 times that of the charcoal; but, as this body gives, with litharge, 34 times its weight of lead, it follows that each part of the lead, produced by a combustible, is equivalent to 230 *caloric units*.

FURTHER NOTICE OF COPLAND'S MEDICAL DICTIONARY.

To the Editor of the Boston Medical and Surgical Journal.

SIR—I notice your remarks respecting “Copland’s Medical Dictionary” in the Journal of this day, and must confess I am not surprised that the subscribers to that work should complain. The proprietor of the work, Gen. Duff Green, allows that he has been remiss in getting out the *third* part, but pleads necessity, to complete such arrangements as will prevent any delay on the arrival of the future parts in this country.

A letter received by me, under date of the 12th inst., from Gen. Green, says, “I am much gratified in being able to inform you that my arrangements are now completed to enable me to carry out my scheme of publication;” also that he will send me the *means* forthwith to pay the founder and print the third part of said Dictionary. I beg of you to assure the public, and particularly the subscribers to the above valuable work, that I have never forgotten them, and moreover that I shall continue to feel a lively interest in the subject till the five parts originally promised are supplied to each subscriber. Perhaps, in justice to the original publishers, it should be stated that *their* promise was made on that of the *English* publishers, who unfortunately were not aware of the magnitude of the work, or were misled by some other cause, so as to prevent what, I presume, there can be no doubt they intended, viz. to complete the work within the time specified. The English publishers