It may please Professor Wood better to say that "power is the differential coefficient of work."

I trust this will satisfy him that power is not the work done in a unit of time, and that the English unit for power is not a unit for work.

The popular expression "force of momentum" is perfectly correct. It does not mean that momentum is force, but that force is an element of momentum; same as we say, "the length of a rectangle" or "the surface of a solid." The momentum divided by time is the *force of momentum*.

It is to be regretted that in the conclusion of his article he "will pass over many important points," for the object of our discussion ought to be to reveal the subject, not to conceal it. I am, as Professor Wood has remarked, "a truth seeker," and think it unkind of him to "pass over important points."

The *Scientific American* says: "The main purpose of Mr. Nystrom seems to be to deny the position that work is independent of time, and he succeeds in involving the question in considerable confusion." After which, the editor of the *Scientific American* suggests to "free our minds from confusion" by taking "most important steps to use words always in their exact signification," *par exemple*. "Regarding work as the overcoming of physical resistance, it is plain that the aggregate amount of any given quantity is independent of the time required for its performance." Does not the *Scientific American* here convey the idea that *work is independent of what it requires*, namely, the time? The editor evidently means to say, that "a given quantity of work may be performed in any desired length of time," but he does not seem to conceive that the *work is dependent on whatever time required for its completion*.

On Aniline Black. By M. LAUTH.

From the London Artizan, March, 1865.

Aniline black is a new colored derivative of aniline, which, so to say, completes the series of brilliant colors derived from this base. It differs, however, in many respects from the other colored derivatives. The mode of production, the way of fixing it on fabrics, and the insensibility to physical and chemical agents which it presents are points on which it differs essentially from the red, blue, and violet of aniline. Mr. Lightfoot's process, which the author quotes, is well known to our readers, and we shall only quote from this paper the author's new process for aniline black, which, it will be seen, and, indeed, is admitted to be, but a simple modification of Mr. Lightfoot's. Mr. Lauth's process consists in printing with the mixture of hydrochlorate of aniline and chloride of potassium an insoluble oxidizable salt, which will become soluble on the fabric—sulphide of copper, for example. By the oxidizing action of the chloric acid (or the chlorine which is set free by the reaction of hydrochlorate of aniline on chlorate of potas-

sium), the sulphide of copper is transferred into sulphate. In this same process, some of the disadvantages of Mr. Lightfoot's process are avoided. It is more economical, the mixture does not act on the steel rollers, nor does it weaken the fabric—not more, at all events, than madder black. The color is very permanent and is fixed at from 20° to 40° C. Its composition allows of its being printed with all sorts of colors. Aniline black has a specially beautiful appearance. It has a very rich black, velvety look. It is completely insoluble in water, alkaline, or acid, and is not affected by soap. Acids change the black to green, but the original color is restored by an alkali. Bichromate of potash deepens the shade, but a very strong solution slightly reddens it. Strong chloride of lime bleaches it, but the color returns after a time. M. Lauth promises another and further account of aniline black in a short time.

FRANKLIN INSTITUTE.

Proceedings of the Stated Monthly Meeting, June 15th, 1865.

The meeting was called to order, with the President, Wm. H. Sellers, in the chair.

The minutes of the last meeting were read and adopted. The minutes of the Board of Managers were also reported, including the following resolution :

Resolved, That a book be prepared by the Secretary, in which any member of the Institute may enter the titles of such works as he deems desirable additions to the library, from which the library committee shall make such selections as they may deem expedient; and that the President be requested to call the attention of the members to the book at the next meeting of the Institute.

The following donations to the library were also reported: From the Royal Astronomical Society, the Institute of Actuaries, the Statistical Society, and the Society of Arts, London; the Natural History Society of Montreal, Canada; Prof. De Volson Wood, Ann Harbor, Michigan; Hon. Wm. D. Kelley, U. S. Congress, and Frederick Emmerick, Esq., Washington, D. C.; and from the American Philosophical Society, John F. Houston, Esq., Prof. John C. Cresson, Prof. John F. Frazer, Samuel S. White, Esq., the Schuylkill Navigation Company, B. H. Bartol, Esq., and the Board of Health, Philadelphia.

The minutes of the standing committees were then reported. The committee on weights, measures, and coinage was, on motion of Mr. Coleman Sellers, discharged. The committee on steam expansion reported progress.

The paper announced for the evening, by Theodore D. Rand, was then read as follows :

The Occurrence of Petroleum in Canada.

Petroleum is found in Canada in geological formations lower than