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PHYSICIANS AS PATENTEES.

We have seldom seen a prettier illustration of professional prejudice than appears in a late number of the Medical Record. Speaking of the ingenuity of American physicians the Record remarks that scarcely a day passes without some new design for the alleviation or cure of disease being submitted to the instrument maker, who first takes good care to charge the designer a round sum for making it, and then goes on to manufacture and sell the article at an immense profit to himself.

Against this one-sided arrangement, the Record protests mildly, and raises the question whether the profession could not arrange with the trade to allow the inventor some return for his work, while the manufacturer retained the exclusive right of patenting and selling the article invented and adopted. "This plan," the Record observes, "would save the dignity of the profession; and though not so remunerative as the holding of a patent, it would nevertheless give a physician some pecuniary recompense for the outlay of his time and means and the labor of his brain."

This solicitude for the dignity of the profession seems to us rather far-fetched. The logic of the Record's position appears to be something of this sort:

First: It is the duty of medical men to give the world unreservedly the benefit of all professional inventions and discoveries they may make. Second: To take out a patent is to retain a proprietary interest in the invention patented. Therefore it is an undignified and unprofessional thing to patent a medical or surgical invention. But a physician may surreptitiously derive a pecuniary benefit from such an invention, or rather from the sale of it, provided he can persuade a manufacturer to allow it to him! For our part we think that this indirect way of getting one's due is infinitely less dignified than the straightforward matter-of-fact way provided by the law. The prejudice against retaining a personal interest in anything pertaining to the profession—a pecuniary interest, we mean—no doubt had a highly honorable origin; but when it is allowed to react, as it clearly does, to the injury of the profession, it becomes anything but a virtue.

No physician objects to the copyright of a medical book—nor does any one imagine that the dignity of the profession is in any way lowered by the circumstance that many of its members add largely to their income by such means. On the contrary, it would be easy to show that copyright has greatly helped to raise the profession in usefulness and in the estimation of men. It serves as a powerful inducement for the preparation of medical works, and, when completed, assures their publication. Without the protection which copyright offers to both author and publisher, it would be quite impossible to get the more costly and valuable of such professional contributions printed at all; and without the prospect of printing there would be little encouragement to undertake their preparation. What the dignity of the profession would have been without its literature we need not attempt to say.

What the profession has lost, in refusing to take advantage equally of the privileges and benefits of patent rights, it is impossible to estimate. There is not another line of manufacturing business in so unsatisfactory a condition, all things considered, as the making and selling of medical and surgical appliances not patented. Most admirable work is done, but it is done in the most expensive manner. Articles which might be cheaply made by machinery, and should be widely used, are turned out slowly and dearly by hand; the price reacts upon the demand; patients suffer for lack of mechanical aids which they or their physicians cannot afford to buy; and the profession loses in both usefulness and dignity in consequence.

The free gift which the profession intends to make of professional inventions thus results only in making such articles so costly as to restrict their use. The motive is honorable, but the practice conflicts with the conditions of trade to such a degree that it defeats its own end and purpose. Lacking the protection which a patent gives, the maker of any new medical appliance can have no object in making its merits known, or in spending money on machinery for its cheaper or more rapid production; so he meets the limited absolute demand in his own slow and costly way, and charges a profit which helps still more to lessen the demand. As a further result, the mass of medical practitioners are but poorly equipped with professional aids, and the general efficiency of the profession is less than it might be and should be.

The cure of these grave evils hinges, we believe, on the adoption of more business-like and practical views touching this matter by the profession as a whole. The moment physicians and surgeons abandon their prejudice against patents, and act like other people, the business of the professional instrument maker will take on a much more satisfactory aspect. Protected in his work, he would have some inducement to improve its methods. The first result would be to cheapen the products and so encourage their more general use. Enlarged demand would react upon the price, and that again upon the employment of such professional aids, to the natural increase of the intelligence and efficiency of the profession.

Further, invention begets invention; and whatever is done to increase the use of improved professional means and appliances increases also, the probability of still other improvements. The inventor's royalty steps in to encourage the good work, and to secure the preservation of valuable suggestions and devices now commonly lost to the profes-

sion. The benefit that would ultimately accrue to the profession from and through this line of advancement is quite incalculable.

THE OBLIGATIONS OF SCIENCE TO GOETHE.

The great German poet Goethe, is generally more appreciated by students of German literature than by scientists for the simple reason that most of his literary labors were at once understood, while his scientific labors, in which he was half a century in advance of his contemporaries, are only just beginning to be valued; and even now, the large majority of people have no idea of their high importance. He went forward with such great steps that he was soon far ahead of his time, and contemporary philosophers were utterly unable to keep pace with him, a misfortune which he himself felt and acknowledged!

Goethe approached the grand problems of nature not as an unimpassioned investigator, but as an inspired poet, and the wonderful generalizations which he made in metaphysics, in botanical and zoological anatomy, in embryology and comparative anatomy, were the basis of the modern theory of evolution. These theories sprang from his intensely poetical conception of the necessary unity of nature, and have now been generally acknowledged and accepted. Metaphysics he reformed entirely, by proving that in fact there is no such thing as a metaphysical universe, no nature above the visible nature; and therefore, to Goethe, metaphysics proper did not exist. He saw that matter without mind was as unthinkable as mind without matter; and he was the first who attacked the dualism which treated mind and material nature, essence and phenomenon, or whatever else they may be called, as opposing principles. He held that in place of being distinct, they form an inseparable unit. Neither matter nor spirit can exist alone; but everything is both in one; and it is evident that it is just as erroneous to call natural objects materialisms as it would be to call them spiritualisms. Nor can any one call this view of the universe atheism, as it acknowledges a God grander and nearer to man than the hypothetical deus ex machina of the ancient creeds.

There was recently published a letter from Goethe to Jacobi, in which the writer says: "Why some good people want a God existing outside of the universe is what I do not understand. Does not God exist in the universe, everywhere in the universe? If he does not exist everywhere, entirely and undivided (because the whole universe is a manifestation of His, to us, visible form) then does He exist nowhere. Outside of the universe, there is no space; space comes only to existence as an abstraction when a universe is evolved. A limited personality does not fit an infinite being, which must be the highest, living, active unit: not in all things, as if there could be anything outside of Him, but by all things, which appear only as perceptible conceptions to the observing faculties of material beings."

In regard to Goethe's labors in special branches of the natural sciences, we must first consider a principle which he insisted on in all his works, namely: That "a bad hypothesis is better than none at all." Professor Huxley endorses this, and adds: "It forces the mind into lines of thought, in which it is more profitable to go wrong than to stand still." One of Goethe's most celebrated works in the natural sciences is his "Metamorphoses of Plants," first published in 1790. In this work he attempted to prove that there was one fundamental organ, by the infinitely manifold transformation of which the whole world of the vegetable forms was evolved. This fundamental organ he thought he had found in the leaf; but if he had been a microscopist he would have gone farther back, and recognized the cell as the organic cause of the leaf. Applying the same reasoning to the cell development, he would have done as we, enlightened by his example, do now; he would have looked for the primary form or type, or other name by which the originating germ may be called.

Goethe's next great labor was his famous theory of the skulls of man and the other mammalia, that they are only modifications or differentiations of vertebrae of the spinal column, being composed of similar parts. This idea, further developed and applied to other parts, is of the utmost importance, and has effected a reform in comparative anatomy, or, rather, has elevated it to be one of the most solidly founded sciences. To have proved the unity of type of two objects so different in appearance as a vertebra and a skull, and afterwards of other objects, was to have made an immensely progressive step.

Goethe also proved that certain differences between the osseous systems of man and the lower mammalia, which had been insisted on before his time, did not exist in the embryos, and only appeared during and after growth.

It is evident that what Goethe called metamorphosis, is identical with what we call evolution. Witness the following expression: "The triumph of metamorphosis is shown when this theory teaches how simple organization begets families, how families split up into races, and races into various types, with an infinity of individualities. Nature cannot rest, nor preserve what she produces, but her actions go on ad infinitum."

COLOR MUSIC.

A correspondent sends us an essay on the analogies between sound and color, describing a new instrument (which he terms a color organ), which displays lights of various colors, claimed to be harmonious with the music produced. An analogy is traced between arrangement of the colors of the spectrum and that of the notes of the minor scale. Our cor-