

ized life; and in as much as this power is cultivated, and its possessor's right to its products respected, and held sacred to him, in a corresponding ratio does improvement advance. Without an adequate protection of the rights of the inventor to the products of his invention, there can be no sufficient incentive to any extraordinary effort, and, consequently, no very remarkable strides in advance of the present stage of progress. This fact lies at the foundation of the present patent system. Not that the patent law creates or bestows upon the inventor any that are not already his own natural rights, for they are as really and sacredly his in themselves considered, as they can be under the strongest patent.

Not only so, but the inventor has, by virtue of natural right, a more enduring property in his invention, than even the present admirable system of patent law acknowledges. Who will contend that an invention which carries comfort, health, or happiness, to thousands, should not continue to yield to its originator, during its usefulness, some suitable tribute, at least, out of the tide of blessing?

But while the right so unquestionably exists, it is as if it did not exist, and useless unless sustained and protected. Here the system of patent law meets the inventor, and without denying his more extended rights as naturally existing, proposes to furnish the necessary protection of those rights during a brief series of years, in consideration of his relinquishment of them to the public, who are the makers of the law, when that period shall have elapsed. Thus giving him, not the *right* of his invention which he already has, but on reasonable terms of compromise, that which alone can render it valuable to him.—*Scientific Artizan*.

CEMENT.

BY ANDEW URE, M.D., F.R.S., ECT.

Cements are substances capable of taking the liquid form, and of being in that state applied between the surface of two bodies, so as to unite them by solidifying. They may be divided into two classes, those which are applied through the agency of a liquid menstruum, such as water, alcohol, or oil, and those which are applied by fusion with heat.

The *diamond* cement for uniting broken pieces of china, glass, ect., which is sold as a secret at an absurdly dear price, is composed of isinglass, soaked in water till it becomes soft, and then dissolved in proof spirit to which a little gum, resin, ammoniac, or galbanum, and resin mastic, are added, each previously dissolved in a minimum of alcohol. When to be applied, it must be gently heated to liquefy it: and it should be kept for use in a well corked vial. A glass stopper would be apt to fix so as not to be removable. This is the cement employed by the Armenian jewellers in Turkey, for gluing the ornamental stones to trinkets of various kinds. When well made it resists moisture.

Shellac dissolved in alcohol, or in a solution of borax forms a pretty good cement, white of egg alone, or mixed with finely sifted quick-lime, will answer for uniting objects which are not exposed to moisture. The latter composition is very strong, and is much employed for joining pieces of spar and marble ornaments. A similar composition is used by copersmiths to secure the edges and rivets of boilers; only bullock's blood