

MODERN EXPLOSIVES.

The compositions of some of the modern high explosives are as follows :

Dynamite.—Seventy-five parts of nitro-glycerine and 25 of infusorial earth.

Dualine.—Eighty parts nitro-glycerine and 20 of nitro-cellulose (gun cotton).

Rendrock.—Forty parts nitro-glycerine, 40 of nitrate of potash or soda, 13 of cellulose and 7 of paraffine.

Giant Powder.—Thirty-six parts of nitro-glycerine, 48 of nitrate of potash or soda, 8 of sulphur, and 8 of resin or charcoal.

Mica Powder.—Fifty-two parts of nitro-glycerine and 48 of pulverized mica.

Tonite.—Fifty-two and one-half parts of gun cotton and 47½ parts of nitrate of baryta.

Blasting Gelatine.—Ninety-two parts of nitro-glycerine and eight of gun cotton.

Atlas Powder.—Seventy-five parts of nitro-glycerine, 21 of wood fiber, 2 of carbonate of magnesia, and 2 of nitrate of soda.

Rackback.—77.7 parts of chlorate of potash and 22.3 of nitro-benzol.

It will be noticed that nearly all the above explosives are composed principally of nitro glycerine ; and it is probable that in most cases the other ingredients only act as absorbents for this liquid, and really add nothing to the explosive force. The decomposition of nitro-glycerine is practically instantaneous, and the slower acting nitrates and hydro-carbons must be left far behind when the mass is exploded. The power of all these substances is due to the paradoxical element, nitrogen, which is by itself the most neutral and inactive of all the elements, but, when forced into chemical combination, usually confers an element of weakness upon the entire molecule of which it forms a part.

LEGAL.

In the case of *Lantheir vs. Onimet*, which came up for hearing recently in the Superior Court at Montreal, the plaintiff asked that the defendant be ordered to remove a certain building which plaintiff alleged defendant had transferred from his (defendant's) house, and placed at one side thereof, and in close proximity to the line and division between their respective properties. The plaintiff alleged that by a deed of sale of the property in 1884 the defendant especially bound himself never to erect any building in proximity to the portion of the property thereby sold by defendant to plaintiff, which might be injurious to plaintiff in any manner whatsoever. The pretension of the plaintiff was that, by removing the building and placing it where it now stood, the defendant had violated the stipulation of the deed, the building shutting off plaintiff's view of the main road and spoiling the appearance of his property. The court was of opinion that the weight of evidence sustained the plaintiff's pretension, and the judgment ordered the defendant to remove the building, or, in his default so to do, that it be removed by the officers of the court.

PUBLICATIONS.

The Canadian Office and School Furniture Co., of Preston, Ont., have issued a new catalogue, which is attractively printed and contains numerous illustrations of office furniture of various kinds.

Our thanks are due and are hereby tendered to Mr. H. Sayward, Secretary of the National Association of Builders of the United States, for a substantially founed copy of the proceedings of the eighth annual convention of that organization.

Dr. Albert Shaw, editor of the *Review of Reviews*, contributes to the June number of that periodical an interesting four page illustrated description of the new National Library at Washington and a pen-picture of the Librarian, Mr. Ainsworth R. Spofford. The new building is fast nearing completion, and another year will probably witness its occupancy by the greatest collection of books on this side of the Atlantic.

VALUE OF A LABORER IN CONTRACT WORK.

There is no article that enters into contract work of so uncertain value as that of labor. In all the multitudinous things to be done on a large contract, labour is one of the most important for various reasons. The conditions of every kind of work change so that labor values can not be accurately gauged. The times of year in which work is done, the class of work, and the experience of the laborer at the different kinds of work, all make a case where the discrimination of the contractor must come into play to arrange a system of gauging the value of a man's labor on any given work. Some contractors contend that skilled laborers at advanced prices pay better than hiring indiscriminately any and every class of men who present themselves for labor work. In hiring untried laborers much can be saved by having a live foreman, who is good at forcing the men to work; yet there are men of so stupid a disposition that getting work out of them is next to impossible. A contractor of wide experience says that he can, by intuition, tell in a short time just what men are capable of doing, and that he can detect a shirk in short order ; as soon as he finds a man inclined to shirk, that he discharges him at once, and finds that it has a salutary effect upon the others. The difference in the amount of labor that one man can perform, compared with another of the same physical strength, is in the same ratio when one accounts for the payment of the two men, that from ten to sixty minutes loss per day on a laborer would foot up in the course of a week. In employing a large number of men, day in and day out, there is no doubt a great variety of difference in the results of the labor performed, and those results depend very largely upon the study that employers and foremen give to the subject of labor. The loss of 10 cents per day on a man's labor does not apparently amount to much ; but on a hundred men it is \$10. Now 10 cents is a small amount to reckon as difference in value of one over another for 25 cents would be nearer the mark. One can see when he pays close attention to the labor on his contracts where one contractor comes out ahead of another by close attention to labor details. Quantities and qualities of material in contract work can be valued to the penny but labor cannot.—Eastern Contractor.

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