each when applied to the woven product are essential. To be conversant with the form of the makes on point paper is not sufficient. The characteristics they possess in the woven fabric must also be understood. Weaves regular in arrangement and attractive to the eye on paper may have a very defective appearance in the cloth. Of course, this is not always due to the imperfect construction of the crossing, but to the use of inappropriate sizes of yarn and indifferent setting, which are calculated to destroy the regularity of the most systematically arranged weave or design. Unless these points are carefully attended to, whatever weave is employed will be irregular in structure or build. Weaves as well as colors should be combined in accordance with certain well defined and accepted principles of cloth construction. There are some varieties of crossings which are altogether unsuitable for combination purposes. They make good standard cloths when used alone, but defective patterns result from introducing them into designs which contain several other classes of weaves. This is, no doubt, to be accounted for by the fact that the various makes are not similar in one important essential, namely, weaving capacity. That is to say, one weave is adapted to small yarns and fine setting, another to comparatively thick yarns and more open setting; a third would work in small yarns if the number of threads to the inch were somewhat decreased. The marvel would be if the pattern resulting from such an incongruous arrangement were not faulty. Let the makes in the effects which they impart to the cloth be as different as possible, providing they produce a harmonious combination and weave well together.

RENTAL VALUE OF A POWER PLANT.

At the recent meeting of the American Society of Mechanical Engineers, in New York, in his paper on the valuation of textile manufacturing property, Charles T. Main touches upon the rental value of a power plant and the sources of power:

"The rental value of a power plant depends upon its character and efficiency to produce power cheaply. The cost of producing power in small amounts is very much greater than in large amounts, and the amount which the lesses should pay may be obtained in comparison with the cost of producing the amount of power required with a reasonably efficient plant with steam power or by some other means Thus, supposing the power to be rented is water power and plant, its value can be determined by estimating the cost of producing a uniform power by water power, supplemented by steam power if necessary, and comparing the cost of producing the same amount of power by steam power alone, in each case adding such charges as the lessee is to assume. The difference, if in favor of the water power, will represent the value of the power for the length of time the estimated cost covered. If the power plant be a steam plant, it is possible that it has no rental value, that is, it may be so wasteful that it would pay to replace cr change parts of it to bring it into an economical state. If it is an economical plant, and is to be run by the lessee, he should pay such rent as will cover depreciation and a fair rate of interest, and assume repairs, insur

ance and taxes, or pay enough rent to cover them. In the same way, if power is sold to the lessee, the proper amount to pay per horse power per year will vary with the amount which he requires. 9.862 W

"The problem of a fair price to be paid for water to a water company which owns and operates the water rights, and leases the water to persons or corporations who use it in their wheels and power plants connected therewith, is not an uncommon one. There are now more sources of power than there were a few years ago. In fair-size cities electric power can be had, which is very convenient and requires very little care. Where gas is reasonable, the gas engine can be used with a good deal of satisfaction, especially where the work to be done is intermittent. Gasoline and oil engines are now used with satisfaction. All of these sources are measures of value, and the one which presents the most advantages with the least cost is the one to adopt, if not tied down, or is the standard on which to estimate other values."

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