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Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as Acid, oleic, Agricultural inventions, American Association, etc., with corresponding page numbers.

TABLE OF CONTENTS OF

THE SCIENTIFIC AMERICAN SUPPLEMENT

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Detailed table of contents for the supplement, listing sections like I. ENGINEERING AND MECHANICS, II. NATURAL HISTORY, III. MINERALOGY, METALLURGY, ETC., IV. ARCHITECTURE, ART, ETC., V. ELECTRICITY, ETC.

THE DECLINE OF SCHOOLING.

At the recent meeting of the New York State Teachers' Association, the report of the Standing Committee on the Condition of Education showed that, notwithstanding the steady increase in the population of our State, the number of children in daily attendance upon the public schools is declining. The decrease was attributed by the chairman of the committee to "the increased demands made by manufacturing interests," by which was meant, we presume, an increased employment of children in factories.

The lessening number of children in school is not peculiar to New York State or to factory towns. At other teachers' gatherings this summer the same condition of things has been noted and variously commented upon as being more or less visible throughout the country, and more or less to be deplored.

The general feeling seems to be that the schoolmaster is losing his grip, and that the country is likely to suffer in consequence. That the schools are or can be in any way to blame for the declining popular interest in schooling, the school authorities are naturally not disposed to believe; nor does it seem to occur to them to think that their apparent loss of influence may really be an indication of the spread of juster views than formerly prevailed of what is proper for youthful culture.

To say that fewer children "of school age," in proportion to the school population, are now to be found any day in school than was the rule twenty years ago, is very far from saying that proportionally fewer children are being properly educated now. The legal "school age" begins in this State at three years. Formerly the custom was to send little boys and girls three and four years old to the public school; and such is largely the custom still among the poorer classes. With well-to-do people, we are happy to believe, the sending of such small children to school is becoming more and more the exception. The growing feeling is, that even when the school house is kept in a condition sanitarily fit for the reception of infants—which, we fear, is rarely the case—the beginning of school life had better, for the children's sake, be put off until they are six, eight, or, when home conditions are right, ten years old. For this reason a vast multitude of children, whose educational prospects are the brightest, are now kept from school. If the school work were differently planned and regulated, it might be better for some of these children to be in school a little every day; but not under present conditions. The fact that they are not in school, however, must not be taken as evidence that popular interest in education is declining, or that popular education is likely to suffer for it. As a rule children who begin serious school work at eight or ten years of age are as far advanced in their studies at twelve as those who begin at three or four, and usually they are both physically and mentally in better condition for instruction.

Not so satisfactory is the frequent cutting off of the other end of the period spent in school; and yet even that is not an unmixed evil, as the schools are usually conducted. When the free school system was first developed, the belief was general that schooling was the one thing needful to enable young people to get on in the world; and it was a common thing for parents to make great sacrifices to keep their children year after year in school, only to find in the end that their sons were too old to do boys' work, and too proud to begin at the bottom of any trade or other industrial calling and work up. They must do something more genteel, and crowded into the towns and cities in pursuit of clerkships and quasi-professional engagements, in which a little present salary was accompanied with extravagant expectations seldom or never to be fulfilled. Others as unwisely pressed on in their school course, mortgaging their future to prepare themselves for learned professions, vainly seeking to win fame and fortune in places for which they had no real fitness. The condition of much schooled but ill educated girls was, if anything, still worse.

A natural reaction against this misdirection of youth and natural result of the failure of the public schools to shape their work to meet the practical wants of the multitude, is the disposition to cut short the school period early to begin in earnest what seems to be the real business of life. Though ninety-nine in every hundred youth cannot hope to go to college, their educational needs are largely sacrificed to make the school a possible tributary to the college. Time which the majority of youth need for practical preparation for their life's work is thus very largely given to studies of value only in their relation to a subsequent college course which is never to be enjoyed. It is no evidence of popular unwisdom, as most teachers seem to think, that there is an increasing popular indisposition to surrender so much of youth's precious time to such unpractical work. There is nothing so valuable to youth as education, but unhappily schooling and education are yet far from being synonymous; and if the schools are declining in favor, it is because the intelligent public see this fact more clearly than the mass of school officials do.

MORE INNOCENT BUYERS NEEDING PROTECTION.

The readiness of certain "innocent" farmers of the West to take the risk of an extra good bargain under questionable circumstances has led a good many in Iowa into trouble the past summer, and not with patent rights either. As described by the Iowa Homestead, the swindle which they have suffered is worked in this way: "Two rogues watch the papers for stray notices. When one is published, one of them goes to look at the animal. Of course, on applica-

tion, the unsuspecting farmer shows the beast, and the fellow decides that it is not his, and then he returns to his partner and describes the animal to him minutely. No. Two goes to the farmer, and after proving by his thorough description that he is the owner of the animal, says he cannot take it away, and offers to sell it at a bargain. The farmer buys, and in a few days the rightful owner comes along and claims the animal, and of course the farmer is out just so much."

If the victims of these swindles were mere mechanics or other artisans not generally interested in the ownership of cattle, it would be easy to provide a remedy for the wrong here complained of. Some Eastern Congressman might be got to push through the National Legislature a bill to prevent the recovery of cattle that had been "innocently" bought and paid for under the circumstances described. But that remedy is barred by the fact that the innocent buyers are also cattle owners, and occasionally cattle losers; and they would not like to have the general security of their property in cattle unsettled for the sake of guarding them from possible losses in an occasional over-promising purchase. Estrays would be altogether too numerous, and the trade in them too lively under the action of such a law, and Congress would be promptly overwhelmed with rural protests against it.

Seeing that the evil cannot be cured by legislation, we can only hope that education through experience will suffice for the purpose. Two or three "innocent" purchasers in any neighborhood, with subsequent loss, should be enough to "protect" the community from any further imposition of that sort. If more farmers were patentees—as they ought to be—the same rule would suffice equally with respect to the "innocent" purchaser of patented articles from unauthorized sellers.

A LABOR STORM-CENTER.

The city of Pittsburg may just now be regarded as occupying the position of a labor storm-center. Southwest, at Cumberland, Md., the coal miners have for five months been engaged in a strike against a reduction of 15 cents per ton in mining coal; southeast, and at the gates of the city, the miners in the famous Pan Handle gas coal region, have been idle since April first, striking against a reduction of one-half cent per bushel; northeast, the miners are disturbed and inclined to strike for an advance of 15 cents per ton; west, the miners of the Hocking Valley, O., region are striking against a reduction of 10 cents per ton. Worse than all, the great iron mills of the west and northwest, after a brief stoppage, through strikes among the iron workers, have started up, agreeing to pay their men the scale of prices "which shall be fixed at Pittsburg." This makes of the latter city the battle ground of the existing iron strike. Since June 1st, an army of 10,000 idle iron workers have been upon the streets of Pittsburg, and her proverbially smoky atmosphere has given place to one as clear as New York or Brooklyn possesses. In Pittsburg are the main offices and headquarters of the most powerful labor organizations in the world. The Amalgamated Association of Iron and Steel Workers includes operatives in nearly every iron and steel mill from Maine to the Rocky Mountains, and possesses a membership of at least 50,000. The Knights of Labor, with a membership of from 15,000 to 20,000, comprises all manner of industries other than iron and steel; the Miners' Association possesses 12,000 members, all coal miners. In addition, there are the telegraphers, the glass workers, and other trades unions, whose largest membership is found in the same city. It is the demand of the iron puddlers—members of the first named organization—for 50 cents advance per ton in their wages, which brought about the existing iron-workers' strike, a disturbance in which both sides seem as firm to-day as they did nearly two months ago. The varied episodes of these strikes, as noted in and about Pittsburg, would, in the hands of a second Charles Reade, furnish abundant material for a volume surpassing in interest that writer's "Put Yourself in his Place."

FIRE RISKS WITH ELECTRIC LAMPS.

In obviating the fire risks incident to the use of oil and gas lights, electric illumination has quite fulfilled the promise first made for it, but users of electric lights are learning that they are not without their own peculiar hazards, which experience is the only means of discovering, hence the need of especial watchfulness for new developments in every part of the electric circuit.

It will be remembered that the burning of a factory in Philadelphia some months ago was attributed to sparks of molten copper from the coating of the carbons of an imperfectly shielded arc-lamp. More recently, in the same city, a large show window in a popular dry goods store was fired by a Jablockhoff candle. A careless attendant had neglected to screw on the brass cup below the light, and as soon as the current was turned on the fabrics in the window were ablaze from a shower of white-hot particles thrown off by the lamp. This was obviously no fault of the lamp, but the incident goes to emphasize the need of great care in its manipulation.

Even the purely incandescent electric lamp is not without its dangers, as was discovered in a Philadelphia drug house a few days ago. One of the strong claims of this method of lighting has been its alleged inability to set anything afire. The nature of the "low tension" current supplying incandescent lamps was thought to forbid the system's ever playing the part of an incendiary, while the security of the lamps