

IRON CONFERENCE AT ST. PETERSBURG.

THE meetings of the Russian iron and coal trades conference at St. Petersburg have been marked, says *Engineering*, by an acrimonious discussion between the representatives of the older Ural establishments and the newer ones in the Baltic provinces and South Russia. The former date from the time of Peter the Great, when that monarch, by generous and well-directed state support, gave such an impulse to the charcoal iron trade that Russia became the leading iron-producing country in Europe. For a considerable period pig-iron was one of the principal products Russia exported to this country. In the beginning of the century, however, mineral coal began to prove a formidable competitor to charcoal in smelting-operations; and ultimately the tables were turned, and Russia received most of her iron from England, instead of supplying her with it. This revolution was marked by the collapse of the Ural iron industry, the ruin of which was accelerated by the wasteful destruction of the forests, and the extravagance of descendants of the iron-masters enriched by the support of Peter the Great. Twenty years ago the Russian government wanted to encourage the manufacture of rails, etc., for the home railways, and, finding the Ural firms disorganized and ruined, created a new industry at St. Petersburg, Briansk, etc., by giving large and lucrative contracts to a number of Russian and foreign capitalists. As coal and iron do not exist in the immediate vicinity of the Baltic, these new ventures were dependent upon foreign iron and coal for their sustenance, and have never been other than weaklings since their birth. The government is now tired of continually altering the tariff, and giving subsidies to these undertakings; and the attitude of neutrality it has taken up has had the effect of placing most of them more or less on the verge of ruin: hence the delegates representing them have been vehement in their demands for support; and, the support they want being precisely the opposite of that which would revive the Ural iron trade, the battle between the 'independent works' (i.e., using only Russian iron and fuel, as in the Urals) and the 'dependent works,' which cannot exist without foreign iron and coal, has been a tough one, accompanied by scenes of personal and undignified wrangling. It is hardly possible for the government to support one without injuring the other; and, as both are equally rotten, it is angrily disposed towards each of the industrial parties. Probably no branch of Russian trade has 'milked' the financial resources of the government more than the iron trade; and prosperity

and progress have attended so few of its efforts, that the government is almost tired of dispensing its support.

LONGEVITY.

It has been stated, with some degree of reason, says the *Lancet*, that the maximum age attainable by man has risen somewhat during the present century over that recorded in former ages. In judging of such statement, some allowance for error must be made. The exact statistical calculations of our day should not, in fairness, be marshalled against the round numbers of less accurate traditions. The fact remains, nevertheless, that the limit of seventy years is now very frequently passed. Fourscore may even be reached by some without excessive labor and sorrow, and we have among us nonagenarians who carry on with still respectable proficiency the activities of their prime. Such effective longevity is a bright spot in the history of our advancing civilization. Its comparative frequency, and its association with different physical types, suggest a certain generality in its origin, and encourage the hope that it may be, in some measure at least, dependent on personal conduct. It has been stated that no such condition can influence the length of life after middle age. After that period, inherited vital force is the only potential factor. To some extent this may be granted. If we fix an average of conduct, and suppose that a number of persons conform to it, we should certainly find the purest and most powerful constitutional types outlive the others. For instance: a gouty tendency does not enhance the prospects of old age. A rheumatic one is little better in this respect. The scrofulous are heavily weighted in the race of life by the chances of several infirmities. Nervous persons, again, are wiry, and may live through much trouble in virtue of their elastic tenacity. Then there are nondescript diatheses, which, except in their remote history, present no definite physical bias. Theoretically, these are most likely to furnish, under ordinary usages, the old men of a given time.

It will be at once evident, however, that these are general statements, and that an unlikely individual will often exceed his own expectation of life, and by care, or from the suitability of his circumstances, will reach old age. In weighing the value of constitutional tendencies, moreover, another nearly related quality should be considered. This is disposition. The mind of a man must be more or less of the nature of his body, and accordingly we expect to find, and do find, that mental habit reflects in preferences, varia-

tions, rate of action, and the like, the type of processes in the lower tissues. So far disposition is merely a part of constitution; and cheerfulness, hope, apathy, or gloom are only expressions of physical change. That all such qualities react upon the body in such a way as to influence its vitality, is undoubted. On the other hand, they may certainly be overruled by the action of the will, so as to be no longer mere bodily impulses, but trained servants of a governing intellect. They may thus acquire a compensatory value in correcting faults of constitution, and strengthen in proportion the tenure of life.

This brings us to the sphere of intelligent effort. There can be no doubt, in our opinion, that there is much room for exercise of private judgment and energy in seeking the prolongation of one's own life. If there is any known diathetic fault, this implies a law of one's being which will repay in a gain of vitality the man who recognizes it, and guides himself accordingly. The doctrine of the 'survival of the fittest' does not work itself out by blind chance, or without evident design, even among the lowest forms of life. Much less is it to be believed that man is unable so to adjust his circumstances to his needs as to continue to live after a certain mean period. The weaker will sometimes prove himself the more tenacious of life by observing rational methods of living, of which the more robust is careless. Moderation has probably more to do with success in this respect than any thing else. To eat sufficiently, and drink stimulants sparingly, to alternate work with adequate rest, and to meet worries heartily, will afford to every one the best chance of arriving at a ripe old age.

SOME interesting particulars of the German universities have recently been published by the *London illustrated news*. There are, it appears, twenty-nine now existing, including those in the Austrian empire and Switzerland, and the Russo-German university of Dorpat. Twelve have ceased to exist, with only one exception during the first sixteen years of the present century. The oldest is Prague (1348); the youngest, Czernowitz (1875). Six have been founded during the present century, among them four of the most important, — Berlin, Bonn, Munich, and Zurich. The number of students in the universities belonging to the German empire has risen from 14,808 in 1830, to 23,207 in 1883; but the percentage to the population is exactly the same. This percentage had declined very greatly during the intervening epoch, but has been rapidly recovering itself since the renovation of the German empire in 1871. The per-

centage of students of Catholic theology has declined during these fifty-three years from 12 to 3, mainly owing to the establishment of seminaries under direct Episcopal control. Protestant theology also exhibits a falling-off in percentage from 27 to 13, but the actual number of students is diminished only by a fourth. Jurisprudence has gained in number, but suffered in percentage. Medicine has more than doubled its numbers, and philosophy nearly quadrupled them, the percentage of the two united being 52, against 32 in 1830. The students of the exact sciences in the philosophical faculty are now 37 per cent, against 13 per cent in 1841.

It has been estimated, says the *New York medical record*, that one-half the adult men of American birth living in our cities are bald-headed. The estimate is not exaggerated, if it is applied to persons above the age of thirty, and it may be rather under the mark. If, now, it be conceded that one-half of our American business and professional men are bald at the present time, it would be interesting to speculate as to the condition of the heads of their descendants some hundreds of years from now. The probabilities point toward a race of hairless Americans, for baldness is extremely liable to be propagated in the male line, and to appear a little earlier in each generation. The American nation is threatened with the catastrophe of a universal alopecia. The cause is usually imputed to the excessive strain and ceaseless mental and physical activity to which our methods of business and modes of living conduce. From the visitors' gallery of the stock exchange, for example, one views a mob of shining pates, belonging, as a rule, to rather young men.

The much neglected scalp should be thoroughly cleansed at certain intervals. It should be carefully and regularly examined, and if it be unhealthy, dry, and scurvy, the proper applications should be made to it. The wearing of unventilated hats is one of the greatest sources of failure of nutrition of the hair, and these must be avoided. The beard never falls out, because it gets plenty of sunlight and air. These are what the hair of the scalp needs also. Women are less bald than men, because, for one reason, their scalps are better ventilated. In fine, civilization has made the hair-producing organs of the scalp delicate and feeble. They have to be nursed and cared for, or they atrophy and disappear. Young Americans who do not wish to lose their hair before they are forty must begin to look after their scalps before they are twenty.