

### THE EVILS OF TRADES' STRIKES.

We take the following from the last number of the *London Quarterly*, it being part of a most able article called forth by the late "strike" among the building trades in London:—

"If strikes and combinations could elevate the condition of labor, Dublin must now have been the paradise of working men. The operatives there, with true Celtic vehemence, have thrown themselves heart and soul into the Unions, and have fought their battles with a devotion worthy of a better cause. Moreover, they have been almost uniformly successful; but their victories have been even more disastrous than defeats. Dublin was formerly the seat of numerous extensive and highly prosperous manufactures and trades. One after another these various branches of industry were ruined by strikes. Flannel, silk, lace, gloves, almost ceased to be manufactured, and the best Irish workmen migrated to England and Scotland. The wretched and poverty-stricken 'Liber-ties' of Dublin—untroubled by machinery and capital, but infested with pauperism in its most revolting forms—still testify to the ruin inflicted on the trade of Ireland by the combinations of her operatives. O'Connell himself admitted that Trades' Unions had wrought more evil to Ireland than even absenteeism and Saxon mal-administration. The monopoly and restrictions enforced by the Dublin unionists were most rigid; but, as usual, their heaviest pressure was upon the working people outside of their combinations, who were sacrificed without mercy. Unskilled labor was paid as low as 6d. a-day in the very shops in which the unionists were striving to keep up their own wages at an unnatural rate. They prescribed a minimum rate of wages for themselves, so that the worst workman should receive the same as the best. They left little or no choice to the employers in the selection of their men; and the master in want of an additional hand had to go to the Trades' Union and take the person who stood first on their register. 'Knobsticks,' or non-unionists were rigidly excluded; and if any unprivileged man ventured to work at any Union trade it was at the peril of his life. Indeed, several poor wretches were assassinated at the expense of the Unions, and the murderers remained undiscovered. No organization could have been more perfect; and its result was ruin. The shipwrights and sawyers carried every point with their masters; and in the course of a few years there was not a single master-shipwright in Dublin. If vessels frequenting the port required repairs, they were merely cobbled up so as to insure their safety across the channel to Belfast or Liverpool. The Dublin iron manufactory was destroyed in the same way. Mr. Robinson, an iron-master, was prohibited by his men from using a machine which he had invented to meet the competition of English-made nails; and the trade in consequence left Dublin, never to return. Another manufacturer, anxious to execute some metal works in Dublin, in order that Irish industry might have the benefit, found to his dismay that he was precluded from competing with England, not by any local disadvantages, or want of coal or iron, but solely by the regulations enforced by his own workmen. It was thus that the iron trade went down. O'Connell estimated that at least half a million a-year had been lost to the Irish capital in wages alone, through the combinations of the unions. Almost the only branch of trade in Dublin against which strikes failed has been that of coach-building; and it has accordingly been preserved. The Messrs. Hutton held their ground with heroic perseverance. The unionists battered their carriages, cut the silks and laces, beat their foremen, and compelled the masters to ride home armed and guarded; nevertheless, they persisted in carrying on their business in their own way, and by this means kept up their splendid coach manufacture, which would doubtless otherwise have been driven out of the island. The strike infatuation ruined the trade of other districts in Ireland. An Irish capitalist erected a costly manufactory at Bandon, and succeeded in obtaining a large contract. He bought machinery; the workmen worked till it had been erected, and then struck for increased pay. 'We know,' they said, 'that you have got a contract in Spain and Portugal, and you must, therefore, give us higher wages.' The proprietor gave the increase demanded, worked out his contract, and then abandoned the manufactory. The consequence was a loss to the Bandon work-people in wages of about £12,000 a-year. Dr. Doyle stated before the Irish Committee of 1830, that the almost total ex-

inction of the blanket trade of Kilkenny was attributed to the combinations of the weavers. No sooner was it known that any manufacturer had taken a contract than the weavers immediately insisted on an advance. The consequence was that manufacturers would not enter into contracts; they withdrew their capital, the blanket trade was ruined, and weavers became paupers, and had to be maintained at the public expense. Such are only a few illustrations of the triumphs of strikes in Ireland."

### THE WAY THE TEMPERATURE OF OUR BODIES IS REGULATED.

For thousands of years before mankind knew anything of the property of heat to become latent, our Maker had been using this property to adjust the heat of our bodies. The supply of heat to our systems is furnished by the lungs, which operate precisely like a small furnace, producing a slow fire in our breasts, burning the carbon in the fat and other portions of our food, and thus generating a constant supply of caloric. The heat thus produced varies in amount; when we are exercising violently our breathing becomes more rapid, and thus the fire in our lungs is fanned, and the quantity of heat generated is greater than when we are at rest. As it is necessary that the several fluids and solids of which our bodies are composed should be kept at a temperature of about 98°, provision had to be made for carrying off this heat in quantities proportioned to the supply. A part of it is constantly going off by radiation. It is the nature of heat, as soon as it is produced, to fly away in every direction in straight lines, with a velocity of about 200,000 miles in a second; if it meets any body which has a nature adapted to absorb it, it enters into the body, making it warm; if it strikes a reflecting surface, like polished steel, it rebounds from it as an elastic ball does from the side of a building; and if it meets no obstruction, it speeds its straight and swift flight away into the depths of infinite space. It is not, however, by radiation that the temperature of our bodies is adjusted, but by evaporation. If we place an open vessel of water over a fire, we can never raise the temperature of the water above 212°, however intense may be the heat of the fire. At 212° water changes from the liquid condition to that of vapor, and in this change it absorbs and renders latent about 1,000° of heat. If we take a mass of water of the temperature of 212° and pass 1,000 degrees of heat into it, the water will all be changed into vapor, and the vapor will be no hotter, sensibly, than the water was before it had received this great quantity of caloric; the 1,000° of heat have been absorbed and hid, or rendered latent. It is consequently very easy to keep any vessel, or any substance, at a constant temperature of 212° by simply placing it in a water bath. If it had been desired to keep our systems at this temperature the process would have been simple: our lungs would have been made sufficiently large, and the supply of caloric sufficiently abundant, to keep the blood in our veins literally boiling. But the temperature required for the proper action of our muscles and the proper operation of the various viscera of the system is not 212° but 98°, and to maintain this temperature, nature makes use of the same property which substances have of rendering heat latent by their passage from the liquid to the aeriform state, which we use in the water bath. There is no man living who has not had many barrels of water pass out through the pores of his skin in the form of invisible vapor—insensible perspiration, as the physiologists call it. It takes 1,000° of heat to create this vapor from the water of which it is formed. When we are at rest and the action of our lungs is moderate, the insensible perspiration is correspondingly slow, and when a more rapid action of the lungs generates a greater amount of heat, the perspiration is correspondingly increased; and in this way the temperature of our bodies is regulated.

### SOME STATISTICS OF TOBACCO.

The Dean of Carlisle has recently delivered a lecture in England upon the subject of tobacco, from which we gather some interesting statistical information concerning the use of the weed in that and other countries.

In 1856, thirty-three millions of pounds of tobacco were consumed in England, at an expense of £8,000,000, to say nothing of vast quantities smuggled into the country. There is a steady increase upon this consumption, far exceeding the cotemporaneous increase of population. In 1821, the average was 11.70 oz. per head per annum;

in 1851 it had risen to 16.36, and in 1853 to 19 oz., or at least at the rate of one-fourth increase in 10 years. There are 12 city brokers in London expressly devoted to tobacco sales, 90 manufacturers, 1,569 tobacco shops in London, 7,380 workmen engaged in the different branches of the business, and no less than 252,048 tobacco shops in the United Kingdom. And if we turn to the continent, the consumption and expenditure assume proportions perfectly gigantic. In France much more is consumed in proportion to the population than in England. The emperor clears 100,000,000 francs annually by the government monopoly. In the city of Hamburg 40,000 cigars are consumed daily, although the population is not much over 150,000; 10,000 persons, many of them women and children, are engaged in their manufacture; 150,000,000 of cigars are supplied annually, a printing press is entirely occupied in printing labels for the boxes of cigars, &c., and the business represents £4,000,000. In Denmark the annual consumption reaches the enormous average of 70 ounces per head of the whole population; and in Belgium even more—to 73 ounces, or 3 pounds and 3-5ths of a pound per head. In America the average is vastly higher.

It is calculated that the entire world of smokers, snuffers and chewers, consume 2,000,000 of tuns of tobacco annually, or 4,480,000,000 of pounds weight—as much in tannage as the corn consumed by 10,000,000 Englishmen, and actually a cost sufficient to pay for all the bread corn in Great Britain. Five millions and a half of acres are occupied in its growth, the product of which, at two pence per pound, would yield £37,000,000 sterling. The time would fail to tell of the vast amount of smoking in Turkey and Persia—in India all classes and both sexes indulge in this practice; the Siamese both chew and smoke, in Burmah all ages practice it—children of three years old and of both sexes; China equally contributes to the general mania; and the advocates of the habit boast that about one-fourth of the human race are their clients, or that there certainly are one hundred millions of smokers!

### LATEST DISCOVERIES IN AFRICA.

A letter was read before the American Geographical and Statistical Society, on the 5th inst., addressed to that body by the celebrated African traveler, Dr. Livingstone, under date of "Tette, Zambesi, Feb. 22, 1859," in which he gives some interesting particulars of his latest discoveries. Referring to his explorations of the Zambesi river, he says:—

"We are all quite sure now, that, during at least eight months of each year, a steamer of four or five feet depth of draught could trade without embarrassment. The reason why so little has been known about the Zambesi may have been the branching in the stormy promontory, by which it was hidden from navigators. And these easy-chair geographers, dreaming over the geography of Ptolemy, actually put down the Zambesi as flowing into the sea at Quillimane, which in his days it probably did, though not a drop of Zambesi water in ordinary circumstances reaches that port. Had some branch of the Anglo-Americans planted their footsteps on its banks, the world would have known all about it long ago; and no one would have ventured to play with the river as has been done, making it loose itself and flow under the Kalahari desert."

Dr. Livingstone and his party ascended a branch of this river, the "Shire," and he gives some account of the people and things along its banks, thus:—

"So far as we can ascertain, this river has never been explored by Europeans before. One part of the luxuriant valley of the Shire is marshy and abounding in lagoons, in which grow great quantities of the lotus plant. The people were busy collecting the tubers, which when boiled or roasted, resembled chestnuts. They are thus real Lotophagi, such as are mentioned by Herodotus. Another part of the valley abounded in elephants. Herd upon herd appeared as far as the eye could reach; and noble animals they were. We sometimes chased them in our little steamer; for the Shire branches off occasionally, and forms islands. The upper part of the valley is well peopled, and many of the hills are cultivated high up. But never having seen Europeans before, they looked on us with great suspicion. They watched us constantly, well armed with bows and poisoned arrows, ready to repel any attack, but no incivility was offered when we landed, nor were our wooding parties molested.