

Wholesale Manufacture of Ozone.

It has long been an idea of ours that ozone might be manufactured on a great scale for the purification of close courts, and other cholera and fever haunts; and we pointed attention to the enormous electrical powers of Sir W. Armstrong's electrical boiler, in order to shew the possibility of this being done. It is interesting now to note, in connexion with our idea, that a sugar-refining firm in Whitechapel is setting up one of Wilde's extraordinary electric machines on their premises for the bleaching of sugar; and we do not despair of seeing the same power soon applied as we originally suggested. Wilde's machine has recently been exhibited to the Royal Society at Burlington House. It is worked by a 15-horse power engine, and possesses wonderful power. The form is magneto-electric, and it has coils 4 ft. high and 10 in. thick, containing 14 cwt. of copper wire. The armature rotates 15,000 times in a minute. The intensity of the light produced by the machine is something almost appalling. It required, like the sun, to be gazed at through coloured glasses. By means of lenses the mere rays of light set fire to paper, and its heat could be felt 50 yards off. It melted the refractory platinum as if it were lead! Various uses for it are being suggested. The total cost of its light is said not to exceed 6d. or 8d. an hour, cost of the machine itself included. The same sort of machine is used in Manchester for photographic purposes, being preferable, it is said, to the sun for taking photographs! It can also, of course, be made available by night as well as by day.—*The Builder*.

Mechanics in Southern Society.

The *American Artizan* says, under this heading the Atlanta (Ga.) *New Era* recently published some able remarks, which were copied into the *Daily Press*, of Augusta (same State), with the following indorsement:—"Rich men do much for the good of the community if they have the right sort of public spirit; but the 'mainstay' of society is its bone and sinew—its *mechanics*. Knowing this, how careful of their conduct, of their good example, of their education, ought to be this class of people! They should spare no pains to fit themselves for the high position to which the working-man belongs." The article in the *New Era* reads thus:—

"The parvenu 'Shoddy' may turn up his nose at the smell of the workshop, and lay his kid glove lightly in the hand of the horny-fisted son of toil; but for all that the *mechanics* are the *stoutest props of the social fabric*. Some of the most prominent luminaries in the world's gallery of science have strode from the workshop to fame. Roger Sherman found it no disgrace to be reminded of the lapstone on which he hammered out his fortune. The humbler Collier, who applied steam to the purpose of land transportation, is a greater benefactor to the human race than half of the millionaires of the world. The great instrument which brings planets almost within the reach of astronomers was invented over the loom of Holland, the London weaver, who was too poor to afford a tallow dip to furnish light for the prosecution of his studies. Hugh Miller, a stone-cutter, has enriched science by the tremendous truths that he has quarried from the earth. Clark

Mills, an humble house-plasterer, ranks among the first artists in the world. Few who are familiar with the name of Sir Humphry Davy know that at one time he was a boot-black and errand-boy in the Royal Academy, in which he was first professor when he died. Franklin, the great philosopher of our country, was at one time an humble disciple of "the art preservative of all arts;" yet he drew a voice from the thunder-storm which is now breathing intelligent whispers throughout the length and breadth of the civilized world! The list could be pursued further—for names in it are legion—but it is unnecessary. The examples we have given are sufficient to prove that no man is humbled by his vocation—that from some of the most menial employments have arisen geniuses which astonished the world with their brilliancy. But apart from these prominent examples, *mechanics—as a mass—are the most useful and profitable members of society*. Whether hewing the beam, rearing the massive walls, shaping the shoe or heavy bar, delving in mines, guiding the engine on its track, or toiling amid the heat and smoke of the furnace, they are the architects of our social fabric, and occupy positions entitled to the highest consideration. Theirs is an independence of heart and hand. They shape their own fortunes, and shape the destiny and influence of a country or community. The sweat of their brows brings an emolument of wealth to the society in which they reside. Show us a city where there is a large element of mechanics, and we will show you one that is in a high degree prosperous. Our own city is an evidence of this. We have among us not less than five thousand mechanics, and it is admitted by all parties that we are going forward with marvellous strides.

"*Mechanics are a direct source of revenue*. They attract money to their community, and disburse it among home tradesmen. Deprive Atlanta of this class of her population, and it would have a woeful effect upon her trade. Their weekly or monthly expenditures keep an incredible amount of money in circulation, which is the support of many prosperous merchants."

A mass of iron weighing 1000 pounds at the equator would weigh 1005 lbs. at the poles, and but 500 lbs. at a distance of 2,000 miles below or 1650 miles above the earth's surface, and only 160 lbs. on the moon. On the planet Jupiter, however, its weight would be increased to 2,600 lbs., while if placed on the sun, it would gain 27,000 pounds.

At the Farmer's Club of the N. Y. American Institute, a sample of milk from the United States Condensing Co. was exhibited and drew out quite a discussion. This milk can be used for all purposes for which ordinary fresh milk is employed, and is considered of a superior quality of purity, etc., to that generally sold and used in the city.

Professor Faraday has demonstrated that the electricity evolved during the combustion of a few grains of charcoal or a common candle would, if arranged in a continuous circuit, exceed that of the most powerful batteries.