

Ontario Workman.

THE EQUALIZATION OF ALL ELEMENTS OF SOCIETY IN THE SOCIAL SCALE SHOULD BE THE TRUE AIM OF CIVILIZATION.

VOL. II.—NO. 10.

TORONTO, THURSDAY, JUNE 19, 1873

NO. 62

Labor Notes.

It is stated that the working of the coal and iron mines, and the introduction of railroads in China, will soon be sanctioned by the Government.

The Earl of Derby has accepted the presidency of a society which has been formed in the north of England for the promotion of technical education in Lancashire, Yorkshire, and the Potteries.

The recommendations which the Government Commissioners of inquiry into the hours of labor and the employment of women and young persons in factories have submitted to the Local Government Board are published. The Commissioners recommend that the demand for nine hours should be granted, and that the hour should be taken at the beginning and not at the end of the day.

The 101st Quarterly Delegate Meeting of the London Society of Composers was held lately at the Sussex Hotel, Bouverie street. The Secretary read the report, which showed the trade to be in a very flourishing condition, and which was unanimously adopted. It shows an increase on the quarter of £554, 12s. 11d.

There seems to be every reason to hope that the strike of the Cleveland miners is practically at an end. Both parties have agreed to a common sense course. Instead of paralysing the industry of a whole district by an obstinate struggle, they have resolved to appeal to an arbitrator, and to abide by his decision. The proposal was made by the National Association of Miners, and accepted yesterday by the Cleveland Mine Owners Association. The terms of the reference are worth noting. The arbitrator is to decide the question of wages in view of the standard generally prevailing in similar industries in the North of England, and the amount thus fixed is only to be altered after a month's notice on either side. Meanwhile the men are to resume work at the old rate, with no restriction on the amount of work done each day by individual workmen.

The Club and Institute Union have resumed their useful effort to turn the Saturday half-holiday to good account to those members of their affiliated institutions who leave work early. They organize visits to our public museums, public works, cathedrals and other places of artistic, scientific or historic interest, under the guidance of eminent men specially qualified to render such visits a source of instruction as well as of elevated recreation. Lately members from the London club visited St. Paul's Cathedral, when its history and treasures were described by the Rev. Canon Gregory. Similar services have recently been rendered by Me. Hesketh (the architect of the magnificent new staircase) and Mr. Barbor, at Goldsmith's Hall; by Mr. Williams, the architect, at the New Post-office; and by Dean Stanley, at Westminster Abbey. Visits of the same character will shortly be made to the Geological Department of the British Museum, with the help of Professor Owen; and to the Dudley Gallery, with the help of Mrs. Heaton.

A correspondent with the Russian expedition against Khiva says the two columns of General Kauffman's command, from the east, are about to meet at the Boukan hills. The Orenburg columns have approached each other to establish

an English religious path of John Stuart Mill Christian style: "The of thought' who agree place the better arch and State. We crew of them, and capture, whether one calm satisfaction."

James, Bill-Heads, (illuminated or office, 124 Bay St.

Communications.

THE PRESS AND THE WORKING MAN.

(To the Editor of the Ontario Workman.)

SIR.—The Press is a glorious institution. It is truly called a power, whose influence none are so exalted as to despise. We are accustomed to regard it here in Canada, as free; and that it is so, in one sense, cannot be questioned. It is free from all restraint, so long as the laws of libel are not violated or the privileges of Parliament infringed. But while the interests of the community, as a whole, are vigilantly guarded, and many individual classes, sects, and parties have each their separate special organs, there is a very large class who seem to be considered as outside the pale, and who, except when their "sweet voices" are required to turn the balance in a political contest, are virtually treated as the pariahs of society, even by this so-called free and independent Press.

The WORKMAN has been established to supply a long-felt void in Canada; namely, to afford workmen an opportunity of knowing what transpires in the vast field of labor throughout the civilized world which it concerns them to know, and at the same time placing them on a footing with all other parties, in the possession of an "organ" to defend their rights.

I do not know to what extent the workmen of Canada appreciate the benefits to be derived from having a champion as well as a medium of inter-communication—what measure of support they accord it, but this I do know, that they require such an organ; and as one of those who do appreciate it, I propose to offer a few observations on an article in last Saturday's Mail.

I will premise that I am an admirer of the Mail. It is a paper, also, that fills creditably a void which was much felt before its establishment. It is an "organ" of the Dominion Government, with a staff of writers and reporters not to be surpassed. Whether we regard the accuracy of its "phonographers," the brilliant wit of its "funny man," the weight of its thunder, the erudition of its reviewers, or the reliable information of its "sporting editor," the Mail will bear comparison with any journal of its size and age.

It must not be supposed, however, that so large and powerful a "staff" can be maintained by the subscriptions to the paper. Although established by a powerful company, yet it is to some extent a commercial speculation, and it is desirable, when the annual meeting of shareholders takes place, that the Managers should be able to show a balance on the right side of the ledger. In order to attain this desirable end, advertising patronage is absolutely necessary. Every newspaper must have this support or die. A practical printer might undertake to give away either the Globe or Mail—if not to offer a bonus to its readers—provided he could be certain of securing the amount of patronage enjoyed by them. I dare say the Editor of the WORKMAN would gladly undertake to do that. But, as Managers of newspapers, with powerful writers under their control (sometimes erroneously called editors), seldom know how to economize at the right end—being generally selected because they are not printers—(adventurers or failures in their proper calling) it follows that they become the advocates, for the nonce, of any who will advertise with them.—"Advertise! advertise! advertise!" and you'll see what you will see.

Now, workmen don't advertise, consequently they are pariahs. They have no rights known to the "independent" Press.

It appears that a mechanic named CUTTLER, recently from England, ignorant of the real position of the "free and independent press" in Canada, having found this country not exactly what it was represented to him by "touters," has ventured to give what he considered a correct view of the condition of skilled

mechanics when they fell into the hands of "smart men," who regard immigrants as "fair game," to be "plucked" or "gouged" or "chiselled" on the most improved principles. Alas, poor CUTTLER! Your doom is sealed. The sooner you leave Canada the better—the Mail has decreed it. What could have possessed you to say the winter is cold—the workshops sometimes insufficiently warm to work in—fuel dear in Toronto, and rents high? And, worse than all, to insinuate that the advertising patrons of the "independent press" don't always pay their employees? This statement might stem the tide of skilled mechanics flowing to this country, and prevent the "glut" which would enable the "capitalist"—whose only stock-in-trade is brass,—from bringing down the mechanic to his "proper position"—that of abject servility—begging for work on any terms the "capitalist" chose to dictate.

The attention of the Manager of the Mail having been drawn by a "correspondent," (an advertising patron, residing in Hamilton,) to the statement made by the unfortunate CUTTLER in an English paper, some poor journalist on the Mail staff is instructed to notice the mechanic's "impertinence," and of course he does it—he must do whatever he is required—his only alternative being starvation or prussic acid. Accordingly, the thunder of the "independent journal" is hurled at poor CUTTLER in the following fashion:

We fear Mr. CUTTLER is epicurean in his tastes, and altogether too big for his boots. It seems to grate upon his nice feelings to have to live in a wood house. "A house such as you will pay 3s 6d per week in England for, we have to pay from \$8 to \$10 per month, and made of wood at that." Poor fellow! What part of England does he refer to when he makes this comparison. Certainly no city there of from sixty to a hundred thousand inhabitants. There is no such difference as he says. As comfortable a house as any mechanic could desire to live in, can be had in Toronto for from \$8 to \$10 a month; and he is a poor mechanic who cannot afford to pay that. We do not think that coal ever reached the figure he names, \$10 a ton; if he had said \$7 a ton, he would have been much nearer the truth. Another grievance with Mr. CUTTLER is that there are no fire places in the houses, "so we have to pay \$20 or \$24 for a stove, as a landlord does not furnish the house with a fire-place at all." Fire-places are not put in the smaller classes of houses as a rule, because they are not as economical as stoves; and when Mr. CUTTLER says that such a stove as would be necessary for a house renting for eight dollars a month costs from \$20 to \$24, he simply increases the amount a hundred per cent.

Here is another complaint:—"Now about the wages; but you must bear in mind what is printed in the emigration books is mostly false. When an Englishman seeks employment he naturally enquires what the wages will be, and most of the employers will say 11s., 13s., or 15s. per day; so the man goes willingly to work, naturally expecting when pay day comes to receive 11, 13, or 15 English shillings per day, but, to his great surprise, they are only English sixpences, which they call 'York shillings' here. Work during ten hours per day, or sixty hours per week, constitutes a week's work, and some of the employers will come to you on pay night and ask if you can do with so much this fortnight, and there are some employers from whom you cannot get a square-up without leaving and telling them you are going to cross the line." This is absurd on the face of it. "York shillings" are hardly ever spoken of in Canada, except by a few of the "oldest inhabitants." All business is done in dollars and cents. When a man enquires as to the wages he is to receive he is always answered in dollars, not in pounds and shillings—either English, or Canadian, or "York" shillings. Anyway there could never be such a wide difference between the idea of the man seeking employment as to the wages he was about to receive, and the idea of the man who was to pay him, as between a "York" shilling and an English shilling. We doubt very much if such a case as that said by Mr. CUTTLER to be quite common ever occurred in Canada. As to the payment of wages, it is, as a rule, regular. The law of Ontario now enables a workman to obtain a lien upon his employer's property, so that there can be no suffering in this respect.

Mr. CUTTLER, we have no hesitation in saying, is not a typo of any large number of mechanics in Canada. Nor do we want any such. The sooner he leaves the country the better. There is plenty of employment for all who come, who are not as fasti-

dious as this grumbling Englishman, and who are willing to do a fair day's work for a fair day's wages. Whether some emigrant agents speak too highly of the country or not, it is unquestionable that we have here a splendid field for the emigrant seeking a new home.

I trust the mechanic will survive the above onslaught, and has not shrunk into those "boots" which the Mail says are too small for him.

Though there was an old woman who lived in her shoe, as a shantle for CUTTLER his boots wouldn't do; For the Mail (which some call a pragmatist) says for them CUTTLER "is altogether too big." How the scribe found that out is not easy to state. Unless, taking their measure, he has felt their weight. For those who to priggery are too much inclined, often feel people's boots, with their toes in, behind.

CUTTLER should take his "dose" philosophically, letting it pass for what it is worth—and that is not a great deal when it comes to be analysed. Besides, journalists don't mean one-half what they say. They are splendid fellows—if you make some allowance for their hard fate—and as harmless as sucking doves. I once knew an Editor who in size and weight was something like the Tichborne claimant, and who being an Irish barrister who never had a brief, took to writing editorials as a dernier resort. When ever he had a tough subject to handle he laid himself down to it. How many fell victims to his pen I never heard, but working in an adjoining room I always knew when he had "done" for somebody; for at the conclusion of the last page of "copy" he would jump off his chair, throw down his pen, pirouette round the "sanctum," slap his colleague (a timid little man) upon the back, and then exit, singing the "Groves of Blarney."

Let poor CUTTLER, then, take comfort. The attack on him was "done to order"; and though a little "acid," is, after all, but harmless gas.

OUVRIER.

Toronto, June 17th, 1873.

[We have not seen Mr. CUTTLER's entire letter, and consequently are not in a position to offer an opinion on the subject. We insert OUVRIER's letter, but do not endorse all his remarks. We shall, however, be pleased to hear from Mr. CUTTLER in reply to the Mail's remarks—if he has any to make.—ED. O. W.]

THE POLARIS MYSTERY.

The official report of the investigation now going on in Washington will, when published, be found to contain substantially the following facts, obtained from a gentleman who had opportunity to converse at great length with Capt. Tyson and Esquimaux Joe, the two most important witnesses just before their departure by the Frolic. In order to make this story clear and coherent, it will be necessary to repeat a few of the circumstances already mentioned in the Herald. On the 16th of October last, the day after Capt. Tyson and his crew, in two boats and a ryak, had been separated from the Polaris, they saw that vessel about ten miles away. It was a very short day, the sun being visible only three hours on the horizon. Tyson and his men could see the Polaris plainly from the ice floe, and it seems, therefore, evident that those on board the Polaris could easily observe the men on the ice floe. There was nothing to prevent the vessel from coming to their rescue; there was no obstruction in the way of ice floes; it seemed all smooth sailing, yet Buddington apparently did not even attempt to approach them. The Polaris made sail, and steamed into Northumberland Inlet. And here is a circumstance which throws

A DARK SUSPICION UPON BUDDINGTON, and lends color to the belief that he purposely abandoned the unfortunate men on the ice floe to what must have seemed to him inevitable destruction. A few months before the final parting Tyson was sent ashore, with two boats' crews, on a scientific search. At this time Buddington, who was under the influence of liquor, threatened to abandon the party on the ice. He did not, however attempt to carry out his menace, for Tyson and his men got safely

on board the Polaris. Tyson, though he was reticent as to his relations with Buddington, admits that there had been ill-feeling between them, that Buddington was jealous of Hall, and that he (Tyson) being an intimate friend of the latter, was also an object of dislike to Buddington.

The circumstances of Captain Hall's death as told by Joe to my informant, and as they have undoubtedly come out during the investigation in Washington are these: On the return to the Polaris from a sledging expedition (when he had reached the highest northern latitude—82° 16 sec.), Captain Hall called for a cup of coffee. Immediately after taking it he was attacked with violent illness, and died in a few hours after. While convulsed with pain he called for Joe to his side and told him he was suffering from the effects of poison. He charged Joe solemnly to "tell the President of the United States that

HE BELIEVED HIMSELF POISONED."

These, says Joe, were the words of the dying explorer. This language acquires a still greater significance in connection with these circumstances. All the Esquimaux were warmly attached to Captain Hall, and, seeing that their services were indispensable to the expedition, it looks suspicious that they should have been sent out by Buddington with the men who were left on the ice floe. If Buddington was guilty it might have been his wish to get rid of the Esquimaux in order that they should not turn evidence against him when the Polaris got into port. It is also charged that Buddington wanted to get back to Disco, in order to take possession of the stores and \$1,800 in money left in charge of a Danish magistrate. The discipline on board the Polaris after Capt. Hall's death was bad. Everybody wanted to be captain.

Buddington is described by those who know him as a good sailor, but very much given to drink, and when intoxicated he is said to lose his identity and to be incapable of self-control. He carried his excess so far as to drink alcohol out of the lamps when he could not obtain ardent spirits elsewhere. Though there rests a dark shadow upon Buddington, it will require, however, more than the facts so far elicited to clear up the mystery that hangs upon the Polar tragedy.—New York Herald.

Prof. Wise is again proposing to cross the Atlantic in a balloon, and promises to start from Boston Common on the 4th of July, if the authorities of that city will aid him in his preparations to the amount of \$3,000. An order to that effect has been passed by one branch of the city government, and there is a possibility that the long-entertained theory of aeronauts of constant air-currents from west to east; will soon be put to the test of practical experiment. Prof. Wise is willing to risk his life in support of his theory, and his content of his ability to cross the ocean in sixty hours, and he is not alone in his opinion, as many scientists consider the enterprise quite feasible.

Among the curiosities of mechanism to be exhibited at Vienna will be a watch made entirely of rock crystal. It appears that many years since a workman in a French manufactory decided to make a watch, every part of which, the main spring alone excepted, should be of rock crystal; after thirty years of labor he accomplished his task. All the pieces of the watch are fastened by rock crystal screws, and the escapement is most intricate. His widow would never part with it; but when she died, the treasure fell into the hands of a French watchmaker, who intends to exhibit it as a specimen of French workmanship, pricing it at two thousand dollars. Certainly few articles could possess greater interest on the score of ingenuity.

It is reported that the New French Ministry favors free trade, and will reverse the policy of the Thiers' Government. Under the protective policy France as done wonders in recuperating after the exhausting war; she has paid or provided for the whole of the German indemnity; she has re-organized her army; her manufactures, trade and agriculture have been restored to their former prosperity.

NOTICE.

We shall be pleased to receive orders of interest pertaining to Trade Societies from all parts of the Dominion or publication. Officers of Trades Unions, Secretaries of Leagues, etc., are invited to send us news relating to organizations, condition of trade, etc.

TERMS OF SUBSCRIPTIONS.

(INVARIABLY IN ADVANCE.)

Per Annum	\$2 00
12 Months	1 00
Single copies	5c

ADVERTISEMENTS.

Each insertion, ten cents per line.

Contract Advertisements at the following rates

One column, for one year	\$150 00
Half " " "	85 00
Quarter " " "	50 00
One column, for 6 months	80 00
Half " " "	45 00
Quarter " " "	25 00
One column, for 3 months	50 00
Half " " "	30 00
Quarter " " "	17 00
One column, for 1 month	10 00

All communications should be addressed to the Office, 124 Bay Street or Post Office Box 1025.

We wish it to be distinctly understood that we do not hold ourselves responsible for the opinions of correspondents.

Our columns are open for the discussion of all questions affecting the working classes. All communications must be accompanied by the names of the writers, not necessarily for publication, but as a guarantee of good faith.

WILLIAMS, SLEETH & MacMILLAN,
124 BAY STREET.

Trades Assembly Hall.

Meetings are held in the following order:—
Machinists and Blacksmiths, 1st and 3rd Monday.
Painters, 1st and 3rd Monday.
Coachmakers, 2nd and 4th Monday.
Crispins, (159), 1st and 3rd Tuesday.
K.O.S.C. Lodge 356, 2nd and 4th Tuesday.
Tinmiths, 2nd and 4th Tuesday.
Cigar Makers, 2nd and 4th Wednesday.
Iron Moulders, every Thursday.
Plasterers, 1st and 3rd Thursday.
Trades Assembly, 1st and 3rd Friday.
Bricklayers, 1st and 3rd Friday.
Coopers, 2nd and 4th Friday.
Printers, 1st Saturday.
Bakers, every 2nd Saturday.

MESERS. LANCEFIELD, BROS.,
Newsdealers, No. 6 Market Square, Hamilton,
are Agents for the WORKMAN in that vicinity, who will deliver papers to all parts of the city.

MR. J. PRYKE, "Workingman's Boot Store," will also continue to supply papers.

TO CITY SUBSCRIBERS.

City subscribers not receiving their papers regularly, will oblige the proprietors by giving notice of such irregularity at the Office, 124 Bay Street.

The Ontario Workman.

TORONTO, THURSDAY, JUNE 19, 1873.

NOTICE.

We would request such of our subscribers who have not yet forwarded their subscriptions to do so at an early date. Those of our city readers who will receive their bills during the present and coming week will oblige us by remitting the amounts forthwith.

TO SUBSCRIBERS.

We have received several complaints from our subscribers in Ottawa as to irregularity in receiving their papers. We beg to assure them that THE WORKMAN is punctually mailed from the office, and the fault must rest with the post office officials. We trust the Postmaster at Ottawa will see to it that the irregularity complained of will be remedied.

EDUCATION.

Under our admirable Common School system, the facilities for education in our young country have steadily improved, until at the present day as good a general education can be obtained in Canada as in any country. In addition to our common schools, our colleges and universities, law schools and theological seminaries are scattered almost in profusion over the land; numerous schools of medicine supply us with enough medical graduates to cure all the ills that "flesh is heir to;" there are Academies of Design, and schools of painting, and conservatories of music,—but may we be pardoned for suggesting that perhaps the one most important field of education is still vacant,—we have no school for

the instruction of youth in the mechanical arts.

It is palpably impossible for all young men to become professionals—nor are we of opinion that it is at all desirable that even a large proportion of them should become such. But whatever their future occupation is to be, it is highly desirable that their education should be defined and marked out by the proposed occupation to a very great extent. If a young man aspires to professional honor and preferment, he must acquire a thorough classical and practical education, in addition to the study of the technicalities of law, or medicine, or theology; should he aspire to authorship and a literary career the broadest possible range of reading, constant thought and unremitting labor, in addition to the groundwork of a liberal education, are requisite. But if a young man of limited means desires to render himself above want and comparatively independent by becoming a skilled artisan, a subordinate position, with little or no instruction in practical matters connected immediately with his labor, and absolutely none in anything beyond that, is deemed quite sufficient.

But we think a vast improvement on this system might be made, and undoubtedly will in some future day; and the improvement will be in the establishment of schools for the instruction of young men in all the branches of skilled labor; perhaps combining sufficient work to be self-sustaining, with lectures, libraries, and all the modern appliances of education. Such schools, embracing instruction of both mind and hand, would afford education in its truest sense; and they would offer golden opportunities for young men of limited means to thoroughly prepare themselves for positions of usefulness. Then artisans would in a great measure cease to be mere machines without an idea beyond their routine of daily toil. Those who desired it might become educated and fully versed in practical matters connected with their various callings; and there are many who do desire it, but who are compelled to relinquish further study and enter with but comparatively scanty preparation upon their manual labor, for want of necessary means. To all such, the introduction of this system of instruction would be an inestimable advantage. Is this a Utopian chimera? Is it not rather what has long been needed—and should have been supplied long ago? Such a system would prove not only an individual but a national benefit,—for the strength of a nation materially consists in the intellectual advancement of its people.

THE NINE HOURS' MOVEMENT.

The movement in England for shortening the hours of labor in factories for women and children looks in a healthy state. Those agitating the subject are active, hopeful, well supported, and what is not the least gratifying feature, evince their steadfastness of purpose by a moderation and intelligence which augurs well for the success of the movement. The Dundee People's Journal notices, as not the least satisfactory of the incidents of the movement in favor of Mr. Mundella's Bill, a crowded meeting held recently in Kinnaird Hall. It says:—

"The tone of the meeting was excellent, the speeches models of good sense and taste, and the whole proceedings a striking contrast to the bitter feelings which were excited when, a quarter of a century ago, the Ten Hours' Bill was fought through Parliament in the face of the determined opposition of the whole employing class and their friends. Should Mr. Mundella succeed in carrying his Bill, a Session which seems destined to be otherwise barren will have produced at least one important measure."

At the meeting allusion was made to the reports of such capable and disinterested observers as the Messrs. Redgrave—men thoroughly informed as to the condition of the factory workers at home, and furnished with special opportunities for gaining reliable information abroad—which reports show how little formidable the competition of the foreigner is, real as it may be. Factory owners, half ashamed of their former fears, and yet half afraid of further

changes, appear to offer little or no opposition to Mr. Mundella's Bill; and the report of the Commission appointed to inquire into the subject, is favorable to its object.

LIFE AND LIFE FORMS.

[No. 2.]

BY R. R. Y.

The conditions to which the life-property is attached are sometimes exceedingly simple; and in the sense of knowing the simplest life-form we may be said to have arrived at the extreme limit of life, although we are possibly far from having discovered the extent of living organisms of a little higher grade. This lowest life-form is a single cell, or almost infinitesimal globule, perfectly structureless, and only containing a little fluid not seemingly unlike that in which it exists.

But if we find in these cells the simplest forms of life, it is now known also that in combination, similar cells form the highest and most complicated. All animal and vegetable structures are entirely composed of such. The hardest bone does not in this respect differ from the most delicate tissue, and the same is true of every other description of organized matter.

It is in these cells, the animal and vegetable kingdoms, so widely different in their higher developments, almost meet. Even under a very close scrutiny, animal and vegetable cells are precisely alike, and it is only by the utmost discrimination, aided by the most careful chemical analysis, that the difference can sometimes be detected; and in fact, so closely do the two kingdoms approach in the lower forms that it is yet a matter of dispute to which certain organisms truly belong.

Both the animal and vegetable cell multiplies in the same way, viz., by sub-division, and this at an almost incredible rate. Each cell gradually assimilates more and more fluid, and then sub-divides into two, perfectly alike. These then divide into four, eight, sixteen, and so on, until there is a filament of cells, each independent and capable of separate existence, but each attached to the other by its cell wall.

As an instance of the rapidity with which this reproduction goes on, we take the *Protococcus nivalis*, or red snow. This in the course of a few hours will redden vast tracks of snow; and another, the *Bovista giganteum*, is estimated to produce, in one hour, no less than four thousand millions; while the infusorial *Paramecium*, according to the calculation of Ehrenberg, increased at the rate of upwards of 268 millions in a month.

We may notice also a most valuable and wonderful property of the vegetable cell, viz., its power of elaborating such an amazing variety of products. It receives or imbibes but few substances from the outer world—water, carbonic acid, ammonia, and some other soluble salts; but with these few it is able to bring forth from its secret laboratory, all that can gratify the eye, the smell, and the taste of man. The beautifully tinted juices to which the flowers owe their rainbow variety of colors, the sweet odors with which they perfume the air, the gums, the balsams, the sugar, the starch, the medicines, the poisons, in endless profusion, are all distilled or fabricated by the vegetable cell.

Let us now advance a step in the animal scale, and we come to a group of minute creatures, with most of which those who had the opportunity of observing a drop of stagnant or infused water, through a good microscope, must be familiar. There is the utmost diversity of form and structure, yet all exhibit great liveliness and activity. There is one which seems but one removed from the cell, but has the capacity to change its form, and of forming a temporary stomach by producing a small external cavity or indentation, wherever a nutritious particle is found. In another we observe an opening, which serves the purpose of a mouth, and the first trace of a canal for the circulation of the nutritive fluid, while in others, this opening or mouth is surrounded by

a number of cilia or hair-like arms, which by their incessant motion produce a circulation of the water, and thus bring within reach the particles of nutriment or prey.

A little higher, and we come to a group whose characteristic form is radiate. Of these, the beautiful coral, the medusa, and the starfish, may be taken as examples. The medusa is particularly worthy of notice. It can hardly fail to excite our admiration of these creatures to consider the various functions they perform while their gelatinous bodies are apparently little more than a mass of vivified sea water. "Let," says Professor Owen, "that fluid part of a large medusa which may weigh two pounds, when recently removed from the sea, drain from the solid parts of the body, and these when dried will be represented by a thin film of membrane, not exceeding 30 grains in weight."

The general appearance of the starfish is well known. From the centre, in which the mouth is situated, spring usually five long rays or arms, diverging on every side, and looking, as observed by one writer, like the tails of so many scaly lizards. These rays are of exquisite workmanship. They appear to be nearly solid columns with narrow tubular canals running through them, but they are in reality penetrated by various organs, with muscles for motion, with glands for secretion, with nerves for sensation, etc. Externally they seem built up of plates, which fit and partly overlap one another, so as to allow freedom of motion. Those on the upper side are triangular with blunt points, those beneath are square with the points cut off, and they are connected with ridges, bearing long slender spines in each side.

These spines, we are told, when examined by a microscope of high power, present very beautiful objects. "When the rays of sunlight are reflected from them, they resemble the most elegant taper columns or obelisks. Throughout the whole length, and as the whole is composed of a substance of brilliant transparency and exquisite polish, the points sparkle in the light as if the whole column were sculptured in crystal."

The simple mechanism by which the suckers—of which there are about 200, placed all along the rays—are put in motion, is also very wonderful. Each of these little organs is tubular, and connected with a round visicle, filled with a watery fluid, and contained within the body of the starfish, immediately beneath the hole from which the sucker issues. When the animal wishes to protrude its feet, each visicle forcibly contracts, and propelling the fluid into the corresponding sucker, causes its extension; and on the contrary, when it wishes to withdraw them, a contraction of the suckers draws back the fluid into the visicle.

We might also notice the form and structure of the beautiful Encrinite, etc.; but we must now pass on to another and very different type of life-forms, viz., the jointed, or ringed form. This is always a long, soft, tapering body, made up of a great but varying number of rings or segments, and it is interesting to observe that we here find a distinct system for the circulation of the blood, as well as a nervous system, though they are of a rudimentary character. A familiar example of these creatures is the lowly earth-worm. Each of the rings in this case, is furnished with eight retractile bristles, by means of which it is enabled to burrow its way through the earth in all directions, subsisting on roots, woody fibre, and such other organized substances as come in its way. Although these worms are small and despised creatures, the part they perform in the operations of nature is highly important. Insinuating their pointed heads between the particles of earth, they succeed in making a passage, and thus by the united labor of myriads, the earth is lightened and vegetation wonderfully assisted. Besides this, in the Proceedings of the Geological Society, Mr. Charles Darwin has satisfactorily proved, that these earthworms are most valuable agents in fertilizing lands, es-

pecially in undisturbed pastures, gradually covering the surface with a layer of finely pulverized earth of the richest character.

But the earthworm is much surpassed by those which have their homes in the sea, and which are provided with all the means of leading a life of activity and enjoyment. Some of these consist of several thousands of rings, and thousands of muscles to direct their movements. Each segment has also delicately formed branches or gills, and with bristly feet, serving both for locomotion, and clasping their prey in a deadly embrace. Clothed in robes of metallic brilliancy, these beautiful worms of the ocean glide through the crevices of submarine rocks, or conceal themselves among the water plants, or in the sand at the bottom of the sea. Here they lie in wait for their prey, ready like the larger snakes of the dry land to dart forth suddenly upon the first unfortunate crustacean or naked mollusc that heedlessly swims by.

Belonging to the same class, is another worm, which neither burrows in the earth nor swims in the ocean, but hesitates not to make its home and prey in man himself. We refer to the tapeworm. This is truly an extraordinary and—we will say it—interesting creature, especially as regards its structure, if not in its operations. Let us examine it a little. It consists of a ribbon-like body, formed of square flattened segments, sometimes amounting to upwards of 500 in number, and attaining an aggregate length of 60 or even 100 feet. The points become much smaller at the fore part, diminishing at length so excessively as to form a very attenuated neck, at the top of which is placed a little round head. This is furnished with a mouth, two rows of hooks, and four suckers. A head like this, however, says Professor Jones, supported on a neck so slender, would be quite unable to ensure attachment for the enormous body it is destined to support; additional and firmer anchorage must, therefore, be provided. This provision has accordingly been made. Upon the margin of each segment has been placed a strong and prominent sucker, so constructed as to adhere with a firm grip to the smooth walls of the intestine, where the creature has established its abode; every joint is, therefore, fixed in situ, and it thus becomes no easy matter to dislodge a worm like this from its numerous anchorages." But what is extraordinary and altogether unparalleled in the economy of the tapeworm is that while as regards certain organs and functions, each segment is really a distinct independent animal. In other words, each tapeworm, so called, is a compound of hundreds of distinct animals, although there is but one mouth and one alimentary canal.

(To be continued.)

DEBT.

"Owe no man anything" was the advice or rather the command of the Apostle nearly two thousand years ago, but mankind has never paid much attention to the injunction, though we have suffered and do suffer severely for disregarding it. "Of what a hideous progeny of ill, is debt the father?" says Douglas Jerrold. It is indeed the parent of many ills, of many troubles, perplexities, wrongs, and crimes. When a recent philosopher claimed to have discovered a method of avoiding debt, everybody asked "how? how?" "Never run in debt" was the simple reply.

We know how extremely hard it is for workmen to avoid debt. Men whose daily earnings are not sufficient to furnish their families with the absolute necessities of life, are sometimes forced into debt by the inexorable demands of the world. For men thus situated, it is a desperate measure, but it is a desperate measure, to incur debt. And what is the result? A vast majority of them, at his death, find his family in a state of ruin, and half of them are to

look the world boldly in the face; his self-respect is gone, and he is in a measure a slave to his friend, for "the borrower is servant to the lender." And then if he is unable to meet the amount when it falls due, he must either shun his friend, the street on which he lives or the places he frequents, or go to him and frame some lying excuse, for men seldom have the courage to boldly own their inability to pay. They must needs say some unforseen and untoward event prevented them from being as good as their word. Extravagance is fed by debt. The rich borrow to keep up a false and hollow appearance, and the poor imitate them, and bankruptcy, general revulsion and insolvency are frequently the result. Can we not avoid this evil? Most certainly. How? By adopting the motto of John Randolph, "Pay as you go." This eccentric statesman, interrupting himself in one of his sententious diatribes, cried out, "Mr. President, I have discovered the philosopher's stone. It consists of four short words of homely English,—Pay as you go." But the nation heeded not the warning words—it continued to run in debt; we ran in debt as colonists, we borrowed in the war for independence, in the war of 1812, in our Indian wars, and to cap the climax, came the war of secession. We borrowed the funds to prosecute that war, and we now pay on our National Debt about one hundred and twenty-five million dollars interest in gold annually. This is what we, as an nation, suffer for running in debt. This vast burden is the incubus whose weight is paralyzing the industries of the country and keeping the poor in hopeless misery. No matter what your income may be, we admonish you to shun debt as you would a viper. Pay as you go and preserve your manhood, your independence, your self-respect. Men who are always in debt are always more ready to accept a reduction of wages than men who "owe no man anything." An old proverb says, "an empty bag can not stand upright." The same can be said of a man in debt. Our young men are especially warned to refrain from borrowing and securing board and clothing on credit. Something may turn up; work may cease and leave you unable to pay, and being unable to pay, and having to leave the locality, will place you in an unenviable predicament. Save your money, and pay as you go. If you have but one dollar save it until you can add to it another. Do not flippantly say:

"Tis the last golden dollar, left shining alone: All its brilliant companions are squandered and gone. No coin of its mintage reflects back its hue, They went in mint juleps, and this will go too! I'll not keep thee thou lone one too long in suspense, Thy brothers were melted and melt thou to peace! I'll ask for no quarter, I'll spend and not spare, Till my old tattered pockets hang countless and bare."

Nothing makes a man more independent than the knowledge of having a few dollars laid by for an emergency, while the want of them makes a man in many respects an absolute serf. A man without money is at the mercy of his employer, especially if he is a man of family; and being without money and in debt he never rises above that level. Some writer has very truthfully said that if "Pay as you go" was made "an inflexible law in ordinary human dealings, it would bring more peace and comfort to mankind than all the elixirs, transmuters, solvents, and stones that are likely to be found in the alchemist's alembic." It requires a good deal of moral courage to live within a small income, but getting into debt will only intensify and aggravate your misery. Better endure privation than suffer a loss of manhood and self-respect. In case of absolute necessity, it would be better to forcibly take sufficient to supply that necessity than contract a debt you know not how to pay. If your income is not sufficient to meet your expenditures, and if retrenchment and economy have been practiced until they have ceased to be commendable, instead of running in debt, try and increase your income. There must be something wrong, God never intended one man to starve while another had more than a

sufficiency. There is a wrong somewhere and you must right it. Look around you, consult your fellow men, unite, combine, and demand an income that will at least enable you to make both ends meet. Do not rush into intemperance, for that is even worse than debt, for it invariably produces debt, and then you will have to wrestle with two evils, and in rushing from the loathsome embrace of one to the iron grasp of the other, you will be apt to sink between them into a premature grave. If workmen, when they find their disbursements exceeding their receipts, would endeavor to renege the outgo and increase the income, what an amount of sorrow and wretchedness would be avoided, and what an era of comfort and genuine happiness would be inaugurated? "Pay as you go," and if you have not the wherewith to "pay as you go," combine and get it; or, retrench your expenditures somewhat, but pay as you go, no matter how you do it.—Cooper's Journal.

BASE BALL.

A match game of Base Ball will be played on Saturday next, the 21st inst., on the Toronto Cricket Grounds, between the Maple Leaf Club (present champions) of Guelph, and the Dauntless Club of this City, for the championship of the Dominion. It will be rembered that on the 24th May, the Dauntless, nothing daunted by their previous defeats by the champions, again tested their strength, and judging from the fact of the Toronto boys having been compelled to play with four of their second nine, in lieu of some of their best players—the score at the finish being, Guelph 13; Toronto 11;—we may expect a different result on Saturday, as, for the coming event, the Dauntless will have one of the strongest fields ever yet playing with this club. We would advise all lovers of the game not to lose this opportunity of witnessing what will undoubtedly prove one of the most interesting matches of the season.

THE CRIMINAL LAW AMENDMENT ACT.

The bill to repeal the Criminal Law Amendment Act, 1871, has been printed in its only one clause, and this reads as follows:—"The act of the thirty-fourth and thirty-fifth of Her Majesty, chapter thirty-two, shall be repealed from the passing of this Act—Provided,—1. That nothing in this Act shall affect any penalty, forfeiture, or punishment incurred or anything done or suffered before the passing of this Act, or affect any right or liability accrued before the passing of this Act, or any prosecution or proceeding in respect of any such right or liability. 2. That no person shall be liable to any punishment for doing or conspiring to do any act on the ground that such act restrains or tends to restrain the free course of trade." The bill has on its back the names of Mr. Mundella, Mr. Morley, Mr. Carter, and Mr. Eustace Smith.

NATIONAL MINERS' CONFERENCE.

An important and largely-attended conference of delegates, representing over ninety thousand men of the various branches of the National Association of Miners of Great Britain, was commenced in Glasgow, on Tuesday. Mr. Alexander McDonald, president, occupied the chair. Messrs. Lloyd, Jones and George Howell, secretary of the Plimsoll Defence Fund, were also present. After the Chairman had welcomed the English delegates, reports were read from all the districts of the association, from which it was evident that it was in a very flourishing condition. The conference was resumed on Wednesday. The proceedings were commenced by a lengthy speech from Mr. McDonald, the president. He touched on various subjects relating to the condition of miners, and stated that to trades unions might be attributed their improvements since 1858. On the grounds of humanity and policy he deprecated the present mode of the tenure of miners' houses, and contended that they should have a yearly lease, in common with the rest of the community. When the men were in possession of sufficient funds to provide for all emergencies in "the way of trade disputes, he would undoubtedly advise them to purchase collieries for themselves. He commended the efforts of Mr. Plimsoll on behalf of sailors, and appealed on behalf of the fund. After discussion, resolutions in favor of the repeal of the Criminal Amendment Act and the law of conspiracy were agreed to. The conference was commenced for the third day in Glasgow on Thursday. The president, Mr. McDonald, read a letter from Mr. C. Briggs, one of the owners of

the Cleveland mines, addressed to the manager of the South Belmont mines, stating that, "being an advocate of co-operation, he has prepared to meet the committee of miners before any arbiter or umpire, and to accept his decision as to whether any advance in the present rate of wages could be fairly demanded, and further stating his willingness to carry out the principles of industrial partnership to the furthest extent by allowing his miners to participate in any extra profits their joint labours might realise. If this proposal were not at once accepted, he preferred to keep his mines closed. A committee of four delegates, including Mr. McDonald, was appointed to go to Cleveland and endeavor to bring about a satisfactory settlement. The conference recommended a new Compensation Act, and certain alterations in the present mode of tenure of houses held by miners. The question of the propriety of miners purchasing collieries on the co-operative system was discussed and approved of.

THE ACADEMY.

OUR NEW STARS AND OLD FAVORITES, BY OUR POET.

And still they come from east and west From north and south, the very best, That money can procure or bring, To-night you'll hear Miss Granville sing; And oh! so sweet that thrilling voice Miss Gertie is the people's choice; John Carol, too, you ought to see, It can't be beat—that lively flea; Besides no other man can show Such music on the old Banjo, Those favorite Woods of course remain And echo back that sweet refrain; Miss Leslie, too, like fairy sweet, Seems full of magic in her feet She dances with such ease and grace, To which she adds a pretty face; Then Quilter Dick, and Goldrich, too This week in Songs and Dances new, With Worley as a magic sprite, And West who will your hearts delight, And thus for hours you laugh and smile Till last of all comes Stephis Saville, While Webb and Clark and Quin keep time To that great uproar Pantomime; With this great talent all combined Me thinks you all should go, They'll use you well and treat you kind And give a moral show.

Communications.

THE THREE FACTORS.

(To the Editor of the Ontario Workman.)

SIR,—Of the three Factors brought to any business, viz., Consumption, Capital, and Work, the most important one brings trade, another capital, but the workman brings himself, and if he is an honest workman, he is the noblest work of God, and stands before either trade or capital, and should at the very least have an equal share of the profits acquired by the combination of the three, Trade, Capital, and Work.

And is it so? Does the workman in this or any other country enjoy a fair share of the acquired wealth that capital, trade and work produce? Wealth is rapidly accumulating; it is being shovelled together in great heaps. England, according to the Premier, Mr. Gladstone, has gathered more wealth in the last century than in all former times put together, and the great bulk of this in the last twenty-five years. She gathers the wealth of the world into her lap from the produce of her sons and daughters of toil; and sits to-day among the nations a Queen, the richest of all empires. She casts her eyes East, West, North, South, over all lands and climes, and says, "I hold bonds and mortgages on it all." Her merchants are princes, her ships cover every sea, and carry her products to all lands,—

"From India's burning zone, To where stern winter piles with snow Around the Arctic throne."

Trade has gathered wealth in abundance, capital has built her palaces and adorned them at a fabulous cost of time and money, and its wealth is beyond compute. And work, the greatest of the three in the grand combination, what has fallen to the share of work? Alas! alas! brother workmen—"work! work! work!" has been its principal share; till it is estimated one of every eight of the working class in England to-day are paupers, receiving parish relief in some form or other to help to keep body and soul together. And at the very palace gates of trade and capital stalks at noon-day gaunt hunger and poverty, and its handmaiden crime.

"But this is England you talk about," you perhaps will say, "and work is better paid here in Canada." True, we are not come to this yet; but England is our model, set up for us to copy by our statesmen, one and all. We are following the example of England as far as possible in relations of trade, capital and work, and as sure as like causes produce the same results, the end must be the same. English statesmen are at their wits' end to meet the chronic poverty and pauperism, the results of the relation capital, trade and work bear to each other, they bow down before the mighty mass of

helpless poverty, and can devise no remedy; and if this country is to escape this evil the workmen themselves must find a remedy; they must work out their own salvation; they must insist on work receiving a fair share of the profits in the case. Capital and trade must receive less and work more. There is no other way, and if capital persistently refuse all concessions, then the remedy is in co-operation, which is a certain remedy for all the evils complained of as it makes the trader, the capitalist and workman one and the same, and every man's interest lays in the same line.

I am, yours, &c., HENRY ROBINSON. Port Dalhousie, June 16, 1873.

(To the Editor of the Ontario Workman.)

SIR,—In the Old Country we have a very popular, instructive, influential, and well-appreciated work, called or entitled *The British Workman*. It has given me high gratification to see that "the men of Canada" have started and sustained a weekly publication called *THE ONTARIO WORKMAN*.

This is a comparatively young, yet one of the most enterprising Colonies of the British Dominion, and still, it bids fair to be one of the most flourishing of the Queen of England's domain. It is proverbially said, that "the sun never sets on the Queen's Dominions." Does it set *anywhere* without leaving behind it the well-known expression "God Save the Queen!"

If, with my comparatively limited knowledge of Canada, I may speak, I most unequivocally assert, that its loyalty surpasses the general feeling of the Mother Country itself. As far as a monarchical, in contrast with a republican, government is concerned, I have nothing now to do. That I leave to abler pens than mine. On this subject, however, others may deal through your highly estimated pages. Should this take place, I should only be too happy to agree with, or else combat the sentiments expressed by any of your correspondents.

I am truly glad that the workmen of Canada have a vehicle by which their thoughts and ideas may be transmitted throughout this splendid and thriving colony and also to their friends in England. I do not wish to be tedious either to yourself, Mr. Editor, or to your numerous subscribers. I shall, therefore, conclude by saying, I shall be exceedingly glad of an interchange of thought, and will endeavor to make myself palatable in the chape of reply.

A NORTH OF DEVON FARMER'S SON, D....E. Toronto, Ont., June 17, 1873.

(To the Editor of the Ontario Workman.)

SIR,—As in England, so also here, we have two Houses of Parliament, the House of Commons, and the House of Lords. This, to my mind is a very wise and salutary arrangement, for by this means a very wholesome check to the ultra radicalism on the one part, and the dominating influence of the other.

If this constitution of Government did not exist we should soon be trampled upon as other nations have been. Our liberties would be extinguished, and despotism in all its hideous forms become rampant.

We have had exemplifications of this in other countries, but it always tended toward a degradation of the subjects over whom the "iron rule" was exercised. In ages gone by, men were treated as mere serfs; but through the aid of the Press, and free discussion, things are altered,—altered, too, for the better.

We live in an age when any man, and every man, can speak out his candid opinions without the fear of incarceration for so doing. Do we properly appreciate our privilege? I think not, hence many take undue advantage and run into a course of unwarrantable libertinism. The law, however, is sufficiently potent to bring such recreants to their proper senses.

Canada of course is but a comparatively young country, nevertheless, she manages her affairs with admirable skill. I never wish to see the connecting link with the Mother Country broken. "Union is strength," and by fair and honorable means, the one will not only be an adjunct, but a help to the other.

Toronto, June, 1873.

OSHAWA.

(To the Editor of the Ontario Workman.)

SIR,—As a sample of the honorable means adopted to obtain a surplus of labor, I beg to enclose a copy of an advertisement from a London paper of recent date:—"ASSISTED PASSAGES—CANADA, AMERICA—Mr. Dixon, Manager of Self-Protective Society of Emigration, has received letters to send unlimited numbers of mechanics, laborers and others over immediately. Employment is guaranteed. Wages nearly doubled this season. Assisted passages

obtained at the office, 82 Mark-Lane, Steamers from London or Liverpool."

It would be interesting to know who wrote the letters to Mr. Dixon, "to send unlimited numbers of mechanics, laborers, &c." Whether the request has been made by either the Dominion or Provincial Governments. Also, by whom the employment is guaranteed; whether it is guaranteed for a stated time, or just for a few days. And also, who is the party who has informed Mr. Dixon that "wages are nearly doubled this season." As far as Oshawa is concerned, the statement regarding wages is a direct untruth, as with the exception of a number of the employees in the Joseph Hall Works, who have had their wages raised 12½ cents per day, there has been no change in other establishments that I have heard of.

As I believe Mr. Dixon is related to "leading citizens" here, it is surmised that some of the letters he refers to, have been sent from here.

As the writ has been issued for the election of a member to represent South Ontario in the Commons, perhaps there may be an opportunity afforded of asking some of the "leading citizens" regarding the above. I trust the workmen of Oshawa will be careful not to pledge themselves to vote for either party, but more especially to a large employer of labor, or "leading citizen," until they know who the candidates are to be.

Yours, respectfully, HEATHER JOCK.

BIRTH.

At 143 Adelaide Street West, Toronto, on the 14th instant, the wife of Mr. J. C. MacMillan, of a son.

Advertisements.

JAMES BANKS, AUCTIONEER AND APPRAISER, 45 Jarvis, Corner of King Street East.

Mechanics can find useful Household Furniture of every description at the above Salerooms, cheaper than any other house. Cooking and Parlor Stoves in great variety.

SALE ROOMS: 45 and 46 Jarvis, Corner of King St. East.

Furniture Bought, Sold, or Exchanged.

ICE CREAM! ICE CREAM! THE BEST IN THE CITY.

A. RAFFIGNON. Begs leave to inform the public, and his customers generally, that he has refitted his place, No. 107 King Street West, with an elegant new Soda Water Fountain, with the latest improvements, made by Oliver Parker, Toronto, and which will be kept constantly running during the summer season. Also, an elegant Ice Cream Parlor, fitted up to suit the most fastidious taste. Remember the address—NO. 107 KING STREET. Near the Royal Lyceum.

SAVE YOUR FURS, IN Davids' Moth-Proof Linen Bag, CHEMICALLY PREPARED, 50c EACH. JOSEPH DAVIDS & CO., Chemists and Druggists, 171 King Street East.

EATON'S NEW DRESS GOODS!

We show to-day a choice lot of Dress Goods, in checked, plain, and striped material—all the newest shades and colors. A job line of Black Lustres, at 25c per yard—a bargain.

CORNER YONGE & QUEEN STREETS, COME AND SEE THEM TO-DAY.

GOVERNMENT HOUSE, OTTAWA.

Friday, 18th April, 1873.

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

On the recommendation of the Hon. the Minister of Public Works, and under the authority given by the 68th Section of the Act, 31st Victoria, Cap. 12, intituled: "An Act respecting the Public Works of Canada," His Excellency the Governor General in Council has been pleased to order, and it is hereby ordered, that the following rates be levied on Vessels passing through the Burlington Canal, viz:—

On Steam Vessels.....2 cents per Ton. On Sailing Vessels.....1 cent per Ton.

W. A. HIMSWORTH, Clerk Privy Council.

