

man has devoted himself to scientific pursuits, he is unfitted to judge of the merits of practical questions. The misfortune of these mutual misconceptions is, that studious men are apt to transfer their contempt to money as the cause of what they think the faults of business men, and the latter look upon abstract science as the parent of business incompetency. That this is an extreme view is often demonstrated by the correct estimate of general affairs shown in the opinions of bookish men. Great executive ability, the power to systematize and organize large business operations, the tact to control men, and properly dispose the talents of employes so as to develop the highest degree of efficiency, cannot be obtained by the study of books. Such ability is rare, and is the mark of a superior mind, whether it is accompanied by adjuncts of high scholarship or otherwise.

Either to rely solely upon wealth, or to despise it, is an extreme and narrow view of its true worth. It alone will be found a false resource in years when business must, perforce, be laid aside, and the mind is left to feed upon nothing but the retrospections of a selfish life. Neither can the resources of science blunt the keen edge of poverty, nor compensate for the lack of that personal ease and dignity which accompany pecuniary independence. The illustrious Franklin was an example of a man, who, by a proper estimation of the true value of both learning and wealth, and a life wisely adjusted in accordance with it, secured himself against bodily want, and the restlessness of mental inanity. How few there are who, like him, can practice economy without avarice, or pursue learning without assuming pedantic arrogance.

THE WORCESTER COUNTY FREE INSTITUTE OF INDUSTRIAL SCIENCE.

We understand that this novel experiment in education is about to commence its career under the most favorable auspices. It owes its existence primarily to the beneficence of Mr. John Boynton of Templeton, Mass., who placed \$100,000, in the hands of his friend David Whitcomb of Worcester, for the purpose of founding a school of industrial science. The design of this school was specially to provide an institution for the proper education of those intending to become mechanics, farmers, manufacturers, merchants, and public school teachers.

Among the studies to be pursued were enumerated mathematics, surveying, leveling, physics, and mechanics; mechanical engineering, civil engineering including drawing, designing and modelling; architecture, applied chemistry, metallurgy, geology applied to mining and agriculture, bookkeeping, French, and the science of teaching. In connection with these studies it was provided that there should be lectures with experiments, the practical application and use of tools and instruments, and the working of machinery. The school was to be for the youth of Worcester county and was to be free; but only persons between the ages of fourteen and twenty-one years who should pass a satisfactory examination were to be admitted as pupils. In special and urgent cases however this rule might be relaxed so far as to admit a person over twenty-one years of age. Scholars not belonging to Worcester county might also be admitted upon the payment of a moderate sum for tuition. The privileges of the school were to be confined to males only if such should appear to be the more advantageous course.

The munificent gift of Mr. Boynton, was supplemented by the gift from Mr. Stephen Salisbury, of a lot upon which to erect the proposed buildings, and a building fund of \$50,000 contributed by the citizens of Worcester and vicinity, Mr. Ichabod Washburn, who from the first took a deep interest in the success of the enterprise, bestowed upon it a large machine shop and equipment, built specially for this purpose, endowed it with a working cash capital of \$5,000, for the first year to which is to be added the interest of \$50,000 annually during his life, and at his death the principal is to become a permanent fund secured to the institute. Mr. Salisbury not content with having furnished a site for the buildings and having contributed \$22,000 to the building fund and \$10,000 as a fund for books and apparatus, added a crowning gift of \$50,000.

A handsome granite building has been erected, and the machine shop of brick stands adjacent. The school is to be opened in November next, and we wish it and its liberal founders, long life and prosperity.

THE GLACIERS OF SWITZERLAND.

To the traveler in Switzerland, apart from the grandeur of the mountain scenery nothing is more interesting than the gigantic glaciers which form in the elevated gorges between the snow-clad mountains. It is scarcely possible to estimate the extent of the Swiss glaciers, but they are supposed to cover upwards of 1,500 square miles, and vary from 80 to 600 feet in thickness. When viewed from an elevation, the general appearance of a glacier is that of a torrent tumbling through its sinuous bed, to precipitate itself into the valley below, but which has been suddenly stopped by some mysterious agency.

The glacier terminates at the lower extremity in a promontory of ice, thrusting itself into cultivated valleys, and from its base issues a stream of water through natural arches formed in the ice. The Rhine and the Rhone, and many other smaller rivers, derive an everlasting supply from these wasting and ever forming glaciers; and it is a singular fact that these frozen masses have a regular motion. They advance noiselessly and imperceptibly in the direction of the declivity, carrying forward rocks and other substances on the surface, which can be traced from year to year and almost from day to day, all depending upon the mildness or severity of the weather.

Glaciers are not peculiar to the Alps, but have been observed in the Andes. During the summer months tourists through the Alps watch with deep interest the fall of avalanches of snow from the sides of the Jung Frau and Mont Blanc, the reports of which resemble the sound of distant artillery.

Hay Making.

Alas for the poetry of farming! All the songs of milkmaids must be listened for in the old English poets. The whetting of the mower's scythe is almost over—quite over—on my farm! Instead of that one hears the sharp rattle of the mower, and sees the driving man quite at his ease riding round and round the meadow, for all the world as if he were out airing! Whereas, heretofore, two acres would be counted a large day's work; now, ten and twelve are easily accomplished.

Nor is the contrast less remarkable in all the after work. When I was a boy I was placed in line, with all the men that could be mustered, to shake out the hay with forks; and after a few hours all hands were called to go over the ground and turn it. To do this rapidly, and yet so the bottom side shall really come to the top was no small knack. Now, a *tedder*, with one man riding, will literally do the work of ten men and do it far better than the most expert can. Have you ever seen a *tedder*? I have got now a perfect one. The grass rolls up behind it and foams, I was going to say, like water behind the wheels of a steamer. The grass leaps up and whirls as if it were amazingly tickled with such dealings.

The result is, that unless the grass is very heavy, and the weather very bad, you may cut your hay in the morning and get it into your barn before night, in far better condition than it used to be when it required never less than two, and generally a part of three days to cure it.

But I have forgotten the *Horse Rake*. Instead of the old-fashioned, long handled rake, and the five or six men, pulling and hauling to get the grass into windows, that same fellow, with that same horse, rides his luxurious rake, and in a fifth part of the time formerly required, puts it into equally good shape. Indeed, haying if it has lost its poetry, has also lost its drudgery. A man can now manage a hundred acres of grass easier than he formerly could twenty. The only thing that remains to be made easy is pitching on and off the load. It is true that horse forks have been invented, but I have never seen any that did their work well; and in my barn at any rate the old work of pitching and mowing remains; and if you wish to know what fun is, get on the mow, under the slate roof of my barn, on a hot day, and let Tim pitch off hay, as he will if I give him the wink. You will have to step lively, and even then, you will often be seen emerging from heaps of hay thrown over you, like a rat from a bunch of oakum. And then it is so pleasant, when a man is all a-sweat, to have his shirt filled with hay seed, each particular particle of which makes believe it is a flea, and wiggles and tickles upon every square inch of your skin, until you are half desperate!

It is the 2d of July, and my grass is all cut, and the last load is rolling into the barn while I write. How sweet it smells! How jolly the children are that have been mounted on top of the load; and their little scarlet jackets peep out from their nests while Tim stands guard and nurse. A child that has not ridden up from the meadow to the barn on a load of hay, has yet to learn one of the luxuries of exultant childhood! What care they for jolts, when the whole load is a vast and multiplex spring? The more the wagon jounces the better they like it! Then come the bars, leading into the lane with maple trees on each side. The limbs reach over, and the green leaves kiss the children over and over again. So would I, if I were a green leaf, and not consider myself so green after all! And so the load rolls slowly up the hill. There is no such a thing as momentum in an ox. He is always at a dead pull and at the very hardest. But the children like it! The slower, the longer is the ride! Let them take all the comfort they can. By and by they will be grown, and own fine carriages, and roll in style through the streets. But there is many a fair face that rides in a silk lined coach, with a sad heart, and would go back if she could, oh how gladly, to her joyous ride on a load of hay!—H. W. Beecher, *N. Y. Ledger*.

A New Sensation--The Elephant Beetle.

A Nevada paper is responsible for the following beetle story, which goes ahead of anything we have yet read in the fish or snake line. It appears that, in addition to the plague of a plurality of wives, Utah is also afflicted with a visitation of the elephant beetle. A person who returned from the neighborhood of Salt Lake last week, saw myriads of them covering the earth with their shining brownish-black bodies, and destroying everything which they met in their path. Even small animals, he was informed by the ill-fated residents, did not escape the voracity of these hordes; their bodies were crowded upon and worried and wounded cruelly with the powerful antennae until they fell down exhausted by their struggles and loss of blood, when they were fastened upon by thousands and devoured. The entire carcass of a sheep was eaten and the bones picked clean in two minutes and a quarter; and it is said that a dead ox would be gobbled up by them in a quarter of an hour. So ferocious are these giant beetles that mothers are afraid to let their little children go out of the house unattended by a grown person. In their frequent bloody contests the wounded are devoured on the instant. Our informant says they are about four inches long, with legs three inches long; their antennae are stiff, sharp, and fully four inches long; they have a short tail, armed with a power-

ful horn, and their shells are so hard that the weight of a man will scarcely crush them. They are very frisky at times, and jump with the agility of fleas. No other species of the beetle possesses their faculty of uttering a loud sound, which, made by thousands of them at once, resembles the braying of a band of jackasses. Their noise terrified the horses of our informant and his companion, which could not be kept upon the plain, so great was their fright. On one occasion, while they were riding in a valley that was black, with beetles, and crushing them under their horses' hoofs, when their hard cases would crack with a report like a rifle, the fierce insects showed a disposition to attack the horses, and fairly drove them out of the field. We were informed that a scientific man in Salt Lake City was collecting specimens of this formidable elephant beetle for transmission to the various learned institutions of the country.

It is very likely also that the elephant beetle may soon be exhibited on Broadway, immediately after the excitement about the "headless rooster" passes off. We want enough of them at least to imitate the bray of one jackass.

The Commissionership of Patents.

Senator Trumbull has engrafted the following amendment upon the third section of the bill to authorize the temporary supply of vacancies in the Executive Departments: 'That in case of the death, resignation, absence or sickness of the Commissioner of Patents, the duties of said Commissioner, until a successor be appointed, shall devolve upon one of the Examiners-in-Chief in said office, to be designated by the President.' The object of this is to legislate the incumbent Chief Clerk of the Patent Office, who is acting as Commissioner, out of office, and to give the President a chance to appoint Mr. Foote, Senator Henderson's father-in-law, now one of the chief examiners in the Patent Office, Commissioner of Patents. Senator Henderson has been for some time urging the President to make the appointment, but Mr. Johnson has failed to comply because he has understood that Mr. Foote could not secure confirmation from the Senate. Mr. Trumbull's arrangement, however, obviates the difficulty, and it is understood that the President will appoint Mr. Foote Commissioner of Patents should the bill pass. As there are some disagreeing votes between the two Houses, the bill will probably go to a Committee of Conference, and as several members of the House are fully aware of Mr. Trumbull's object, the amendment it is thought will be defeated."

We find the above piece of information in the telegraphic summary of the *Daily Tribune*. We do not perceive any necessity for arranging a legal trap in order to catch the Senate in advance of a nomination. If the President desires to appoint Judge Foote, to the vacant Commissionership, let him do so boldly and without any reference to Senator Henderson or anybody else. Judge Foote would make an excellent Commissioner, and we do not see any reason for his rejection, even though his daughter may have espoused Senator Henderson. We learn the bill has been defeated in the House.

Gen. Stout Acting Commissioner is filling the office acceptable to both Inventors and Solicitors.

The duties of the office he thoroughly understands and we hope no further effort will be made to appoint a commissioner until the President and both Houses of Congress can agree upon some person well qualified for the office.

PAPER MATERIAL.—Notwithstanding the multifarious efforts made to find materials for paper, the manufacturers of this article in the east of France are in such want of materials that they have combined to offer as a prize a model of the value of £160 to any person who produces and applies any economical filamentous matter, which, in the form of pulp, may serve for the manufacture of paper, and which, when mixed with three fourths of rags, shall make a paper of as fine a quality as if made of rags alone. Medals of considerable value will also be given for the best processes for decolorizing and bleaching rags; for the best size for paper; for the best process for neutralizing the electricity developed in the paper while it is in the machine; and for a complete and exhaustive statistical work on paper manufacturing industry in the principal countries of Europe and America. Probably the okra plant, mentioned on page 36, current volume, would fulfill the conditions required.

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[We copy the above friendly hit from the *Evening Traveler*, published in Boston. We thank our cotemporary for the notice, and shall endeavor to pay up in full hereafter.—Eds.]

THE hands in the gas works at Philadelphia are on a strike, and the city is in danger of being left in darkness. The hands demand an increase of 25 per cent on former wages. The utmost economy in the use of gas will not insure its lasting for more than three days, when, if the matter is not adjusted, there will be a dark state of things.