



Agricultural.

THE MERRY TRAVELER.

One day, as I journeyed alone o'er the plain,
I met one who bore on his shoulder and cane,
A wallet that weighed him well nigh down to the earth,
Yet he trudged on his way as though freighted with
nirith.

With burden so heavy, pray how can you sing,
I exclaimed as we met: with the air of a king,
He replied, if it only were twice as much more,
It was merrier borne; and he sang as before.

This world is a wearisome burden of cares,
But cheerfulness eases the shoulder it bears,
Contentment and love lighten every one's load,
And level all hills in the traveler's road.

Among the many improvements of the present day, we notice that the ingenuity of man has been set to work to improve the convenience and pleasure of traveling in rail road cars. An exchange says that on the Southern Rail Road, "Saloon" cars are to be constructed, in which passengers can walk about, engage in social amusements, &c. And that another company is building cars with state rooms, so that passengers can go to sleep at night like christians, instead of being obliged to sit up in a chair for five or six hours. We trust that these "improvements" will not be confined solely to the southern roads.

EXTRAORDINARY HUNT.—On Monday evening last, the train coming over the Michigan Central Rail Road, ran down a fine duck, and after cutting him nearly in two, the cars were stopped and the carcass brought to Detroit.

TOADS ARE POISONOUS.—It is an ancient and still common opinion that toads possess a subtle venom; but at present this is deemed fabulous by the scientific. M. M. Gratiolet and Clooz, as appears by the reports of the French Academy of Sciences, have shown by experiment that they secrete a deadly poison. They inoculated small birds with the milky fluid contained in the dorsal and parotid pustules of this animal, and found that they died at the end of five or six minutes. Even when dried the fluid destroyed birds. Death occurred without convulsions, and all exhibited marked signs of apoplexy.

RICHMOND RAILROAD.—A meeting took place, at twelve o'clock this day, at which delegates from the Town Council were also present. Some further explanations were made. It is possible that the Quebec and Richmond road may be adopted by the Provincial Government as part of the main Trunk-line, and be with the line to Halifax, constructed by the Government. If not so adopted, the Government will still consider itself pledged to aid in the construction of the Quebec and Richmond road. The government appears to be very favorable inclined towards the immediate formation of the said road; and, if delay is proposed, it is merely with the view of making more favorable contracts, and ascertaining the most eligible route.—*Quebec Mercury.*

WHAT'S IN A NAME?—The infant princess to whom the Duchess of Montpensier has given birth was baptised at the palace of San Telmo, at Seville, on the 29th ult., by the Cardinal Archbishop, and received the names of Maria Amelia Louisa Enriqueta Felipa Antonia Fernanda Christiana Isabel Adelaide Jesusa Josepha Joaquina Ana Francisca de Asia Justa Ruliana Francisca de Paul Ramona Elena Carolina Bibiana Polonia Gaspara Melchora Baltasara Augustina Sabina.

QUEBEC AND MELBOURNE RAILROAD.—The Ministry have informed the Directors of this road that they will advance as much money on the security of the Quebec City debentures, as will suffice to carry on the

work until Spring, when the Government will take the matter in hand, and complete the road as a public enterprise.

Powder as a Motive Power.

A Mr. Daggett, of Roxbury, according to the Boston Traveler, has invented an engine to produce either stationary or locomotive power, without the aid of steam—the propelling medium being nothing but gunpowder, and a very small quantity of that, acting by concussion upon compressed air.

The machine is very simple, consisting of a large reservoir, constructed of iron, in the form of a steam-engine boiler, with two explosive chambers attached to it on one side. At the connexion of these explosive chambers with the reservoir there are valves which open into the reservoir, against a spring.

The reservoir being filled with atmospheric air, a blast is given in one of the chambers. This shock acts as a plunger to an air pump, and forces a new supply of atmospheric air from the explosive chamber into the reservoir, like steam, operating upon a piston, and giving the motive power.

When one explosive chamber has been discharged, and the valve closed, as it is instantly by the force of the spring, the action of the machine is such as to produce a similar discharge in the other chamber—and thus a regular and constant supply of atmospheric air is kept up. The discharge is effected by a hammer, moving backwards and forwards with the machine, and striking in the same manner of a gun-lock, upon the explosive chambers alternately. The powder is supplied regularly by the movement of the machine, and in such quantities as may be desired—the arrangement being such as to admit of the application of more or less, as greater or less power of propulsion may be required.

It is evident from the experiments made with the model, that an astonishingly small quantity of powder will be requisite for any practical purpose to which the machinery may be applied.

WHAT CANADA IS CAPABLE OF.—The Canada Company's prize wheat, for which their premium of £25 was awarded at the Provincial Exhibition, held at Niagara in the autumn of last year, and for which a similar sum was awarded at the Exhibition for British America held subsequently at Montreal, has gained a prize at the Great Exhibition of all Nations in London. This should stimulate farmers to improve their grain, and compete for the annual premiums awarded under the direction of the Provincial Agriculture Association. There are some parts of the world—such as Australia—where wheat larger in the berry has been grown, but the flour manufactured from the Canadian wheat is not, we believe, surpassed. The yield per acre of the wheat that gained the above prize was 36 bushels, weighing 67 lbs. per bushel measurement, and we are inclined to think that a comparison in these respects—which are really the important ones—would show Canada to advantage.—*Colonist.*

BURGLARS ALARM.—Mr. William H. Horton, of Jersey City, N. J., has invented and taken measures to secure a patent for the most simple and best Burglars Alarm that we have yet seen. It is simply clock work so arranged and combined with an alarm bell, and a small hinged lever, being slightly pushed by the opening of a room door, will set the alarm bell free, to arouse the sleepers of the room, and defeat the objects of midnight marauders. The apparatus is so neat and small, that every traveller can carry one in his pocket. It is made to be secured to the frame of a room-door, which can be done in one minute, and it can also be taken off in as brief space of time. Persons travelling with valuable articles in their pockets or carpet bags, will find this instrument to be one of the most useful and desirable inventions ever brought before the public for their protection, and it is equally valuable for every householder. They can be made of different sizes, and are not expensive. A very good size made of brass will cost only about one dollar, it is therefore an improvement within the reach of every person to purchase.—*Scientific American.*

DRAINING BY MACHINERY.—A series of interesting experiments have been made at the farm of Mr. Ruck, Down Ampney, Gloucestershire, for the purpose of proving the superior advantages of draining land by machinery, both in time and expense, as compared with manual labour. The machine is an invention of Mr. Fowler, of the firm of Fowler and Fry, of Bristol. The field selected for the experiment consisted of stiff clay land, exceedingly dry on the surface, and crossed by a gravel path. The machine is formed by two horizontal iron frames, nine feet long, placed two feet apart, supported at one end by three wooden rollers, of one foot diameter, turning on axles; at the other end by two cart wheels. At the end nearest the cart wheels, and between the two frames, is supported a perpendicular plough or coulter of iron, seven feet in height, nine inches broad, and three quarters of an inch thick; the side of this plough or coulter, intended to cut and drain, has a sharpened edge; the other side is formed into a rack, which can be raised or depressed at pleasure, by a pinion or winch working into it, so that the plough is capable of being placed in the ground at any required depth. At the bottom of this upright plough or coulter is a socket, in which is placed a lengthened horizontal cone or plug, the point or apex in the same direction as the sharp edge of the coulter; at the back of this plug is fixed a rope, upon which is strung as many drain pipes as its length will allow; a simple process is adopted to add fresh coils of rope, or more pipes are required. A hole is then dug in the ground, say two feet deep and a foot wide, as in the present experiment, gradually sloped at the back, so as to allow the rope with the pipes to enter freely, and the coulter is placed upright in the hole, with its sharp edge and the point of the plug in the direction the drain is to be formed; at the end of the horizontal iron framing, farthest from the coulter, is fixed a horizontal pulley, through which a wire rope is passed, fastened at the other end to a capstan placed at the opposite extremity of the field, up to which the drain is to be formed. Four horses were harnessed to the capstan, which they turned with very trifling exertion, thus drawing the coulter through the land, the plug forming the drain, and the ropes with the pipes following. The time occupied in laying the nine chains of piping was 33 minutes, and the surface land was not more disturbed than if a knife had been drawn through it; when the coulter was drawn up to the capstan, it was raised out of the ground, the rope disengaged from the plug, and the horses hitched to the other ends of the coils of ropes, which they immediately drew out, leaving the tiles accurately placed, as was ascertained by digging down to the drain. Another drain was then immediately formed in the same manner, at a parallel distance of about 15 feet, the capstan still in the same position. The estimated expense of draining land in this manner, independent of the cost of tiles, is about fourpence a chain. From 6000 to 7000 feet can be drained in one day, at an expense of about 30s.

THE LAST WONDER OF GENIUS.—The Muscatine, Iowa, Inquirer, mentions the fact that Mr. Forman, a practical printer, has gone to New York and thence to Washington, for a patent for a power printing press, to be worked by galvanic magnets. The press was in full operation with a form upon it, from which he threw off impressions with a rapidity of lightning. His paper works upon a reel, and is continuous, like the telegraph reel. The paper passes over the type on a cylinder, and when one sheet is worked, the paper is reversed, and the other side printed with a most perfect register, and the sheets are clipped apart as they come from the press, by an ingenious contrivance. There is no limit hardly to the speed at which the press will work; its exact-