Abel. Not light and darkness, nor heaven and hell, are more opposed, than these two schemes. One sets aside the other, not in part, but whol- lowing interesting account of the first steps animals go farther south as winter approaches; It is a well understood fact, that the latter is ly. Salvation is either by works alone or by taken for the construction of the temporary others that are successfully raised in England liable to early frosts, and that the first is most grace alone. If any man risks his soul on a bridge across the falls of Niagara are given and Scotland, cannot be reared in more south- exposed to inclement winds. The best soil contrary belief he will be lost, yea, he is now in the Rochester Daily Advertiser :-

Opening of the Britaunia Tubular Bridge.

-'TUESDAY AFTERNOON.-The opening of how the first wire was to be got over the ri- understand their habits and wants, their dis- as Dr. Deane quaintly observes, "being too this magnificent structure came off this day ver. One proposed the steamboat-another eases and the appropriate remedies for the same. much out of sight, it should be out of mind, with the grandest success at dawn. At half- a small boat to take a line across; another They require not only grain and vegetables, and the necessary culture of it too much nepast six o'clock a.m., three powerful engines, would throw a bomb-shell over, with a cord but lime to make egg-shells, gravel or silica, glected." the Cambria, the St. David, and the Pegasus, attached to it, and several other equally prac-not for the purpose of grinding their food, but Its size and shape are to be determined brother, Mr. Latimer Clark, Mr. Appold, and failure, I will in a more simple and cheaper particular plumage. Mr. Lee. At precisely seven o'clock they mode, attempt to get a line across the gulf."swept over the threshold of the stupendous fa- This being agreed to, those present desired to treats of insects. These infest the grass, grain because adapted to a cheap, easy and regular bric, and progressing at a speed of seven miles know what method he should pursue to get a fruit and forest trees. To preserve the latter arrangement of beds and walks. And in an hour, were lost sight of in the recess of the line across. 'Well gentlemen, I have not the from their ravages is important to the agricul- forming a kitchen garden, it ought constantly iron corridor. The total weight of the loco-least objection to tell you all about it, provided turist in England, Scotland and other coun- to be borne in mind that the main object-is motives was ninety tons. They were brought you adhere to the promised conditions, not to tries where forests are rare, but of little con- utility, rather than show. to a standstill in the centre of each of the great laugh at me. Now, gentlemen, (says Mr. sequence in most parts of this country where Some kind of shelter is desirable upon the spans, and rested with the weight of all wheels Fisk,) my plan and the instrument used, will they abound. By studying the habits of the north and west sides. It is well to avoid the on the floor of the tube, but without causing be the same kind used by Franklin to draw various tribes of insects, we learn how to de-neighbourhood of large trees, as their shade the slightest strain or deflection. The first lightning from the clouds, an instrument that stroy them or to defend the vegetable kingdom injures the crops, while the spreading roots process, that of going through the tube and re- any ingenious schoolboy can make in an hour from their attacks. Take, for instance, the exhausts the soil. A high stone wall laid in turning, occupied altogether ten minutes. But -a kite.' Mr. Ellet remarked he did not see wheat-fly, which nearly destroyed the crop of ime, is a very good protection. In some another and more critical ordeal had to follow why it would not succeed, and gave his con- that grain in Scotland in 1828, '29, and '30, lplaces, an entire enclosure by a picket or close -to ascertain how the vast machine was capa- sent to have it tried. Mr. Fisk then called and which in 1820 appeared in Vermont, in board fence would be required to keep out the ble of sustaining the equilibrium of forces; and upon an intelligent boy by the name of Walsh, 1830 in New York, in 1840 in Maine, and in poultry. The face of the wall or fence should the result was such as to prove beyond cavil, who soon had a kite constructed, and on a se- 1841 and '42 in New Brunswick and the Ca- be covered with trained fruit-trees and grape the accuracy of the first experimental conclu- cond trial, threw a line across, making it fast nadas. The sad results of its ravages are, first, vines; thus being made to answer several imsions arrived at by Mr. Stephenson and his on the opposite side, by doubling which a small a discontinuance of the cultivation of wheat portant purposes. staff of engineers. The second experimental rope was drawn over, and in six or seven dou- and the importation of that grain; secondly, The internal arrangements next demand atconvoy that went through consisted of twenty- bles strength sufficient was acquired to take the cultivation of other grains to supply its tention. These, in every instance, must be tour heavily-laden wagons, filled with huge over the first small cable of 36 wires-this place, as corn, oats or buckwheat; and thirdly, regarded by individual taste. Simplicity and blocks of Brymbo coal; in all, engines includ- was the one used to pass Mr. Ellet over in his an entire change in the food of the inhabitants. plainness, however, are to be recommended. ed, an aggregate weight of 300 tons. This little iron car, and next, himself and lady, and The agricultural statistics of a country, as Ca- We are in favour of regular divisions, made was drawn deliberately through at the rate of many others passed over on this slight fixture. nada or the United States, afford abundant il- by square and line. Serpentine walks, with from eight to ten miles an hour, the steam Since which the present structure has been lustration of the important relations of Ento- crescent, star, or bean-shaped beds, are all working at quarter power. During the pas- reared, resting on wooden towers, 50 feet high, mology to agriculture; for they evince great very pretty in a flower-garden, but to us they sage through the tube, a breathless silence pre- over which passed 14 cables, of the following changes in the kinds and amount of cereal seem ill-suited for such homely tenants as the vailed; and when the train rushed out on the dimensions, viz, five of 36 wires each, five of grains produced in different years, changes potato, the cabbage, and the vulgar onion. other side loud acclamations arose, followed 72, one of 125, and three of 159 wires-1,115 most of which are owing to the ravages of va- We may with propriety suggest a good and at intervals by the rattle of artillery down the in all. To these is the bridge suspended, and rious tribes of insects. To this department be- convenient plan. It is this: A border of six straits. Upon the return, which occupied about is capable of sustaining a weight of nearly long also the infusoria, insects or animalculas, or eight feet may be left around the sides, seven minutes, similar demonstrations ensued, 1,000 tons; yet so slight is its appearance to so small as to be visible only by the power of with a walk in front about three feet wide. and during the progress of the train, those who strangers, that some will not pass it, through the microscope. These exist in great num- The large plat in the centre is then, to be stood upon its top to ascertain any possible vi- fear of its instability, yet heavy teams pass it; bers in the vegetable kingdom, in water both equally divided into four beds, or quarters, as bration, reported they could detect no sensible five at one time were on it, of Col. Mann's fresh and salt; are conveyed by our rivers to they are called, by cross paths of the width of deflection. After this, Mr. Stephenson and Circus, and many droves of cattle also have their outlets, and there mingling with the sand seven feet. These cross paths are made wide his staff steamed up to Plas Llanfair, Mr. Fos- passed it. It is now perfectly safe as a com. of the sea, with alluvial soil and decomposing enough to admit a cart, which, at certain seater's seat, and partook of a handsome break- mon thoroughfare; but will give way to one vegetable matter, form mud, or large delta, as sons, will be needed to bring in manure, or fast. Meantime the locomotives were engag-of the grandest structures in the world, as ed pousetting up and down the interior of the soon as it is required for railroad pur-knowledge of these is of great value to the to be removed, it will be well to dig out the tube, proving, if it may be so said, its strength poses, for which from the exertions now being farmer. almost to provocation, but without eliciting used by the directors and people on both over, calculated with confidence, that the whole the public indebted to the Hon. Charles B. bridge might with safety be deflected to the Stuart, to whose merit abler pens will yet extent of thirteen inches. At twelve o'clock, render the honour due." another testing train was prepared to be taken through the tube. It consisted of the three engines, the 200 tons of coal, and from thirty to forty railway carriages, containing between 600 and 700 passengers. It passed through triumphantly at the rate of thirty-five miles an hour. The effect of the recent hurricane on the calibre of the tube has proved that its lateral surface strength is sufficient and far more so, to resist the redoubled blow of constant blasts. It is calculated that, taking the force of the wind at 59lbs. on the square foot, an excessive supposition, the resistance offered by the bridge would be 300 tons, multiplied by two equal to 600 tons, which is not two-thirds of its own weight The wind going at eighty miles an howr, the rush of a hurricane would only press in the ratio of 128 tons on the side. It is intended when both tubes are up to brace them together with stays, so as to counteract all possible oscillation if any. ere we done to have the

The Great Work of Art.

Eagle Hotel, in the village of Niagara Falls, treatment. Neat cattle and sheep often de- as to be easy of cultivation at any season of there were present Charles Ellet, jr., the engi-teriorate by transportation. neer of the bridge, the writer, and several THE FIRST TRAIN THROUGH MENAI STRAITS. other gentlemen, when the subject came up poultry, is important to the farmer. He should not far distant from the dwelling-house, lest,

of from fifty to sixty horse power each, deco- ticable projects were advanced when Mr. Ellet for the growth of their feathers. A knowledge wholly by circumstances-the nature of the rated with flags of all nations and union jacks, himself suggested the use of a rocket, by which of these subjects will enable a farmer to under-ground, as well as the wants and ability of the steamed up and harnessed together, started he expected to throw his first line across the stand how to feed poultry; and there are others proprietor. One acre, with its wall-trees, hot from the Bangor station, carrying Mr. Stephen-gulf. This seeming to be the end of proposi- of equal importance to him, as the art of mak-beds, etc., will furnish steady employment for son, Mr. Bidder, the engineer, Mr. Trevethick, tions, a gentleman named Fisk, addressing ing them lay through the year, of producing one man. But its produce varies so much locomotive manager of the London and North Mr. Ellet said ' with your leave, and a promise eggs of the best quality, of selecting eggs that with locality, season and management, that we Western Railway, Mr. Edwin Clark and his not to ridicule the idea, if it should prove a will hatch male or female birds and those of a dare not hazard any estimate of the space

two or three months in the winter, and a still is desirable, for the summit of a hill and the NIAGARA Suspension BRIDGE .- The fol- longer time as we travel north. Hence some bottom of a valley are alike objectionable .-ern latitudes, and vice versa. Different vari- is undoubtedly a rich, sandy loam, two or lost; and, unless Christ find him, he will soon "Early in the spring of 1847, while at the eties and breeds require various modes of three feet deep, well drained, and so mellow

the year, except when frozen. The spot se-Ornithology, or that part which relates to lected should be convenient to the stable, and

needed for a family. As regards shape, the Entomology is that branch of Zoology which square or parallelogram are approved forms,

border walk and the cross paths, two or three

unblive aldia The Farm. ca more ad , add an (From the Puritau Recorder.)

PROFESSOR JOHNSTON'S SIXTH LECTURE,

ON THE RELATIONS OF ZOOLOGY TO AGRICUL-TURE.

These are extensive and important. Zoo- in selecting the ground, for a poor situation surface, while the ground is soft, then sow to logy teaches the nature and classification of cannot be improved like a sterile soil by skilanimals, the art of rearing and fattening cat-ful culture. It would be quite unprofitable tle, of distinguishing different breeds, and of for a person to depend upon actual experiment. Paris, five bushels of wood ashes, and five deciding on their comparative merits-themes and keep shifting his plants and frames from bushels of newly slaked lime, all well mixed, which some English cultivators better under-place to place, until he can find one every and finish off by rolling.-Ibid. stand than physiological professors. The way satisfactory. A garden spot is intended former have learned that cattle require less for a lifetime, and it therefore behooves the food in the dark than in the light, in warm owner not to make a selection, until he has stables than in those that are cold, and with given due consideration to the respective admissed for her lack of cleanliness. She relittle exercise, than when put to hard labour. vantages and disadvantages of the different lo-quested her employer, if the cause of her dis-These subjects, as well as the structure of ani- calities that present themselves to his notice. missal should be mentioned, to do it in as mal, a farmer should understand.

As with plants, so with animals, latitude sure or aspect, and from an examination of ficate was given to her : " Ann B- has conchanges their character. In the torrid zone, standard authorities, it would appear that a ducted herself well while in my service, the Reader, you may die any moment, and you they will live in the pasture through the year; preference is given to a gentle declivity to-are as near to heaven or hell as you are to death. as far north as Virginia, they require stabling wards the south-east. A moderate elevation cy to hydrophobia.

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The Vegetable Garden.

TTS FORMATION.

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Same 1 2 1

SUGARA HARANS

Bergh in valuat

Hardly less important to him is a knowledge feet deep, fill up the trenches with the stones, the slightest manifestation of strain or ill tem- sides, it seems likely to be required within a of Meteorology, which treats of the atmosphere and cover with a few inches of dirt. The per. An ordeal stronger still was then resort- year or two. The railroad structure will re- and its different degrees of temperature, mois- quarters, can be annually subdivided in any ed to. A train of 200 tons of coal was allow- quire 16 cables of 600 wires each, all laid ture, etc. In northern latitudes where the manner the owner pleases. He ought to reed to rest with all its aplomb, for two hours, in straight-not twisted, as some have it-but winters are cold and continue several months, member, that to economize room, the alleys or the centre of the Carnarvonshire tube ; and at bound with small wire, and when completed, the farmer must raise large quantities of hay walks should be narrow. The size of the beds the end of the time, on the load being removed, with its massive stone towers, will sustain a and vegetables to feed his cattle, and their pro-will vary according to the wants of their reit was found to have caused a deflection of only weight of more than 6,000 tons beyond its duction make a large demand upon the fertil-spective crops. Large fruit trees hardly be-4-10ths of an inch; and it is a remarkable own weight, a structure worthy, as one of art, ity of his soil. The climate may also add to long to the kitchen garden; on a farm their phenomenon, that this amount of deflection is to stand by the side of one of nature's grand-not so much as one half hour of sunshine would est-the Falls of Niagara. For this and other the comparative dryness of the atmosphere and sons who possess only a few rods of land, they produce upon the structure; it being, more-improvements, contemplated or finished, are of the soil, has much to do with the art of cul- must necessarily be classed in the same limits tivation, particularly with sowing and reaping. as the vegetables. In this case they ought to In New Brunswick there are upon an average be planted in the borders, or in rows, so that 218 fair days in a year, while in New York their shade and roots may not do injury. In there are 240; giving the New York cultiva- the quarters, no bush larger than the currant tors twenty-two more than the farmers in the should be admitted. The vegetables ought to provinces, where the shortness of the spring in have a fair chance.-Am. Agriculturist. part compensates for the loss. Tradick to the same stands

Meadows and Old Fields.

If you have any meadows or old fields that are sward-bound, or which bore but indifferent Considerable judgment should be exercised crops of hay last season, give them a thorough each acre four quarts of timothy seed, ten

a ser and a ser and a ser and a ser and a ser a se The first thought must be regarding expo- light terms as possible. The following certi-