

of any established qualities upon which the breeder can rely, or feel any confidence that "like will beget like." We must admit, however, that some movement has taken place, and that the well defined breeds of England are beginning to be sought after with some care. Many years must of course elapse ere thorough bred cattle will be met with upon every farm, but an important advance will be made in the right direction, by the dispersion of bulls of unquestionable pedigree throughout every district. By the use of improved Durham bulls, our farmers may turn over their money in one half, probable in one third of the time which common stock would require to be made ready for the shambles, while the milking qualities of the grade heifers will be essentially proved.

Sheep husbandry will also form a legitimate object of the attention of the Board. It is by no means expedient or desirable that the manufacturer of superfine cloth could as yet be encouraged in Canada, but a variety of medium and coarser woollen articles may be produced with profit and advantage. The long woollen Leicesters, and the short woollen South Downs, with perhaps a few Saxons or Merinos, may from the basis of varied modification, and will be found to make the farmers quick and reasonable returns. Sheep appears to thrive well in Canada, and to be exempt indeed from many destructive maladies, which a climate less dry, is apt to produce. Neither are the economical attendance and improvement of the soil under sheep pasture to be neglected or overlooked.

Of our domestic animals there are none in Canada to whom we are all more indebted than the Hog. Without its aid small progress could have been made in clearing the forests, by supporting the hardy pioneer of the back-woods. It is highly satisfactory to note the estimation in which this animal is generally held, and the improvements yearly accomplishing in the breeding of Swine, and it will be the bounden duty of the Board to keep its advancement steadily in view.

That most noble of all quadrupeds, the Horse, has been fortunate in securing a large portion of attention from the farmers of Canada, and well does he merit all the attention he can receive. The heavy work of new lands and a large portion of general farm labour being performed by oxen has occasioned our horses to become perhaps rather lighter than is strictly consonant with farming purposes. There is a point which will require attention, and which may be easily corrected if required. As in some measure connected with the improvement of stock. I would call your attention to the expediency of making provision for their treatment under accident or disease.

Veterinary science, too long neglected in Britain has been made wondrous progress of late years, both there and in other leading states of Europe, and has proved of incalculable service to the breeder of valuable stock.—Comparative Anatomy and Pharmacy have lent their powerful aid, and it will become an important duty of the Board to promote, encourage, and superintend the establishment of a Veterinary School in connection with our Provincial University.

As regards the diseases which affect our vegetable productions, it is impossible to avoid special reference to rust, that mysterious scourge which has so often prostrated the fond and well-grounded hopes of the farmer, and which still remains without any satisfactory remedy or preventive having been discovered. The mischief and loss occasioned in some parts of the Province by the ravages of the fly, likewise called for prompt attention.

Heavy and annoying as these partial evils are, how do they sink into comparative insignificance when brought into consideration with the awful and appalling visitation which has for a second consecutive season in Canada, ravaged our potato crop. We sometimes have thought, how old Cobbett would have chuckled over the fall of what he denounced the greatest curse on earth. But no—I will not do his memory so much injustice, as to believe that his anathemas were more than a ebullition of spleen, springing from an honest desire to see his fellow countrymen of Ireland raised in the scale of humanity. There is undoubtedly a very great degree of mystery attending this disease, and all attempts at investigation have hitherto failed in producing any satisfactory results! Far be it from us to give vent to any overstraining sanctimonious remarks; but it is assuredly our bounden duty to receive the visitation as involving consequences which defy the utmost powers of man to fathom, and to feel, in the most impressive manner, how weak and inefficient are all our boasted pow-

ers and resources, when it pleases an Omnipotent Being to chasten or admonish.

Thus, Gentlemen, have I, in a most imperfect and cursory manner, touched upon some of the leading subjects, which appear to come within the legitimate province of an Agricultural Board. It is obvious to all that time and experience alone, can secure any approximation to perfection. Success must on the main, depend upon the general and zealous co-operation of Associations. It is, however, palpably the interest of all classes, to promote what forms the true basis of all prosperity. The merchant, the lawyer, the banker, the mechanic, in a word every active member of the community, owes to Agriculture all his hopes and all his success. If this key stone fails, the whole fabric must quickly fall in ruins to the ground. Let all classes come liberally and readily forward to support us, by their personal and pecuniary aid. We have nothing to apprehend from coldness or indifference on the part of the Executive or Legislature. The cause requires to be only fairly represented, and there can be no doubt that countenance and encouragement will follow. Never, we will take upon us to affirm, could a moderate grant of public funds be more wisely or advantageously invested, than in the support and encouragement of an Agricultural Board for Canada West.

## The Politician.

### The British Press.

From the United Service Magazine.  
EXPLOSIVE PROJECTILES.

The inadequacy of solid shot for sinking or destroying ships is well confirmed by the history of naval engagements during the last three centuries, and has recently led to the adoption of an important improvement in the present armament of fleets. This improvement consists in the vessels having on their lower deck several heavy howitzers, or shot guns, for firing loaded shells instead of solid shot; and, although the effective range of the shells does not exceed from 400 to 300 yards, yet this range is in general sufficient, as decisive naval actions have been fought at distances much less than this. These shells, when fired with a velocity sufficient to make them fix into the sides of vessels, will by exploding there, form most dangerous breaches, and prove much more destructive than solid shot; but if they pass through the sides into the interior of the ships they will not do much injury, as they contain but small charges of powder.

From the disastrous effects produced by the accidental explosion of loaded cannon, or a number of shells, within a vessel, it is evident that if a few shells, containing about 120 lbs. of powder each, were fired through the side of a ship and to explode within it, the result would be most destructive to the crew, and in a short time the ship would be so extensively damaged as to be rendered unfit for action.—Spherical shells capable of containing 120 lbs. of powder, will be 2 ft. exterior diameter, 15 in. interior, and would weigh when loaded, about 1100 lbs. each, and would require caronades or howitzers of the enormous weight of 40 tons for discharging them. The immense weight of the guns necessary to fire shells of such a diameter, presents an insurmountable obstacle to their ever being employed in naval warfare.

This obstacle can be completely removed by using shells of a cylindro-spherical form instead of spherical, which being of equal capacity but of less diameter than the latter, may be discharged by comparatively small guns. Cylindro-spherical shells of 12 inches diameter 9 1-2 inches interior, by 5 ft. in length, will contain nearly 130 lbs. of powder, and weigh when loaded about 830 lbs. each, or 260 lbs. less than 2 ft. spherical shells, and can be discharged by guns of 12-25 inches calibre, and 9 or 10 feet in length. As the shells will have to be fired by as high charges of powder as would be required for spherical shells of equal weight, the guns must be of massive proportion, and to combine strength and lightness, ought to be of brass, and cannot probably weigh less than 6 tons each.

In regard to the range of cylindro-spherical projectiles, it is impossible to arrive at any certainty, no experiments having ever been performed on such bodies, and no formula in gunnery being applicable to its solution; accordingly, it would be necessary to make some experiments on such shells, before their effective range can be ascertained. The resistance of the atmosphere against these shells will only be one-fourth of that by which 2 ft. spherical shells will be opposed, which renders it very probable that, when fired with the same velocity, the range of the former will be more extensive than that of the latter. An experiment to determine their range could well be performed by firing a 100 pound shell (6 in. diameter by 2 1-2 in. length) from a long 32-pounder gun, by charges of 10 or 11 lbs. of powder, and should the results of the experiments be favourable, the larger shells could then be advantageously introduced into all navies.

Ships of the line might have two 12 inch guns on their lower-deck, for 330 pound shells and frigates, and smaller vessels of war could each have two 10 inch guns for 450 pound

shells; the guns could also fire solid shot or spherical shells when necessary.

Of the destructive power of these shells, no doubts whatever can be entertained, and if they could be fired with a velocity sufficient to make them penetrate the one side of a ship, but not both, (in order that they may explode within it,) at a distance of from 300 to 400 yards, they would prove highly serviceable in engagements at close quarters, and might supersede the barbarous practice of boarding.

The preceding suggestions are offered with a view to augment the power and usefulness of explosive shells, and it is to be hoped that the attention of Naval and Military Officers will be directed to the subject, and some experiments made to ascertain the range of cylindro-spherical projectiles, and the practicability of employing them in naval warfare.

## European News.

### MISCELLANEOUS EXTRACTS.

*Marriage of the Earl of Elgin.*—The marriage of George Charles Constantine, Earl of Elgin and Kincardine, the newly-appointed Governor-General of Canada, with the Lady Mary Luisa Lambton, eldest daughter of the late, and sister of the present, Earl of Durham, and niece of Earl Grey, was solemnized on Saturday week, by special license, at St. Peter's Church, Eaton Square, in the presence of a select circle of friends of both families. His excellency is expected to embark for North America, to enter on the official duties of that colony, early in the ensuing month, when the noble earl will be accompanied by his bride.

*Opening of the Ports.*—From the singular unity of argument observable in the London Times, Chronicle, and Daily News, each of which is now more or less favoured by Governmental hints, it would seem that the opening of the ports is a question not finally disposed by the Cabinet; but that Lord John Russell will be decided by the pressure of circumstances between this period and the meeting of Parliament.

*Destruction by Fire of the Garrick Theatre, London.*—On the morning of the 4th instant, shortly before four o'clock, a most alarming and destructive fire was discovered by the policemen on the heat burning in the lower part of the well-known place of entertainment called the Garrick Theatre. The flames were not extinguished before seven o'clock, by which hour the entire building, with its contents, was destroyed. The manager is said to be insured.

*Concentration of Troops.*—It is reported that the Government intended to have the whole of the troops stationed in England concentrated at three points, from which the aid of the numerous railways that are rapidly covering with their net work the whole surface of the island, the metropolis, the manufacturing districts—our southern coast, which would be most exposed in the event of war—could receive speedy and effectual protection. The places that we have heard named as likely to be selected for this purpose are Wolwich, Birmingham, and Newhaven.

*Stockton's Newspaper Envelope.*—We live in an age of wonder. The inventive faculties of man would seem to be constantly at work. In all that relates to arts and science, from the most gigantic to the lowest concerns of life we are daily called upon to witness some new project which has for its object the comfort and accommodation of man. Steam engines which are to drag numerous and heavy-laden carriages on railroads at the rate of 80 or 100 miles an hour—ships to navigate the waters which separate the Old from the new World in 8 or 10 days—are proposed, and, it is said, likely to succeed. But invention confines not its gigantic power to these great undertakings, she deigns to notice the most trivial concerns of life, and among one of the most recent of this class is "Stockton's Newspaper Envelope." We have had an opportunity of examining this simple and ingenious contrivance, and consider that it is likely to prove more efficacious and secure than any other plan proposed or adopted; as such, it is likely to become a favourite with the public, which would prove useful, and remove much of the annoyances and inconvenience to which many parties are subjected in consequence of the non-arrival of their papers.

The Duke of Manchester, who is possessed of large estates in the county of Armagh, proposes to advance money, without interest, to such tenants as are anxious to improve their farms by thorough draining, under the direction of the agricultural inspectors; the sums so advanced to be repaid by ten equal yearly instalments. Lord Logan makes a similar proposition, and offers loans, free of interest, to be repaid in twenty annual instalments, being at the rate of one shil-

ling in the pound per annum; and his lordship will also, at his own expense, secur and deepen the existing water-courses, so as to provide for the drainage of the lands.

According to the concurrent testimony of journals of all shades of politics, the pressure of distress is more severely felt in Antrim than parties unacquainted with the district would be likely to give credence to. A meeting of landed proprietors, headed by the Marquis of Denegal, was held at Ballymena, on the 9th instant, to take into consideration, and decide upon some general, and, as far as practicable, uniform plan, for instituting when required, throughout the several baronies, such class of works as shall afford fair and reasonable employment to the destitute working population.

## United States News.

New York Sun, December 5.  
MEXICO.

The New Orleans Picayune of 28th instant gives extracts from Vera Cruz papers to 8th Nov. Santa Anna is implored to take the presidency himself, which he declines. Eighty Mexicans were killed by the bombardment of Tobasco. Members of the new Congress were elected on the 15th Nov. Old Herrera was unanimously chosen in Jalapa. Another proposition from the U. S. Government was received at Vera Cruz 5th Nov., which the papers ridicule, declaring that no one thinks of peace, all call for vengeance. Americans have been ordered out of the state of San Luis Potosi. The Indians are committing outrages in Durango and menacing Zacatecas. An insurrection against the Americans at Los Angeles, California, in September, terminated in the death of the Mexican leader and a few subordinates. M. Gasquet, French Consul at Monterey, is in custody of the American squadron for protesting against the seizure of California. The U. S. Sloop Cyane was repulsed at Guaymas, with 20 men wounded. Arrangements were making to seize Mazatlan.

Baltimore, Nov. 29.—8 P. M.

*Call for Troops.*—There is nothing in the Western or Southern mails worth sending you. The Washington Union contains despatches from commodore Conner asking for troops to garison Tampico. Santa Anna's position at San Luis Potosi calls for large reinforcements for our posts. Preparations are making for a decisive battle.

## Colonial News.

### New Brunswick.

From the St. Andrews Gazette.

*Great Storm.*—On the night of Wednesday the 25th instant, we were visited by one of the most terrific storms we have experienced here for many years. The wind had been throughout the after-part of the day and evening from N. E. with signs of snow. About midnight it suddenly shifted to S. and blew a perfect hurricane, until about 10 o'clock the following morning. Several vessels at the wharves received a good deal of injury.—The Brig James and Schooners Defiance and Nelson, at the Market Wharf; and the Barque Latona and Brig Baron, at Frye's Wharf, were all more or less damaged. A small Sloop the Hornet, owned and navigated by Mr. DeWolfe and his son, rode out the gale, outside the Western bar, until about day-break when the anchor stocks giving way, she was driven on shore and capsized on the beach.—Providentially both father and son hung on to the vessel, and were enabled to crawl out from under her as the tide receded, both all but dead with fatigue, and cold. The cargo destined for St. Stephen, has been, we understand, saved.

One of the Boom Piers of the Steam Mill was blown down.

In the country, houses were unroofed, and every where fences laid flat.

## Shipping Intelligence.

### PORT OF RICHIBUCTO.

The schr. Relief, Powell, on her passage from Miramichi to this port, encountered a heavy gale, with snow, on the 30th of November; shipped a heavy sea, which carried away three stanchions, with bulwark and night in addition; sprung foremast, broke main boom, split fore-sail, and jib, and blew away flying jib. The vessel made considerable water, she arrived at Richibucto on 1st inst., with very little damage to cargo.