ing upon the individual interest of the body politic, as to make it really a family paper; acceptable alike to the merchant and the mechanic, the artist and the agriculturist.

To supply this desideratum it is proposed to establish a quarto weekly paper, to be published in Toronto, entitled THE CANADIAN FAMILY HERALD, in which Agriculture, Art, Science, and Literature, in their latest discoveries, their most recent inventions, their gradual development, and their present and prospective social benefits, will be concisely and comprehensively unfolded, from the most reliable sources; thus presenting a Family Paper in which all the members of the household can find something suited to their individual tastes and capacities.

Mechanics' Institutes, Public Libraries, Mutual Improvement Societies,—in short, every institution which has for its aim the good of man, will be warmly supported, as, in our rising country, too much attention cannot be paid to the inculcation of sound moral precepts, so that the youthful mind may be thoroughly stored with useful knowledge.

New Publications will be reviewed with candour, and the various departments of the paper will be all carefully arranged under their respective heads.

The size chosen for the Herald is convenient for binding, while it will be furnished at a price within the reach of all classes of the community. Interesting European News will be attended to, and no expense will be spared to make it a most agreeable and instructive family paper, worthy the patronage of all who rejoice in the extensive diffusion of useful knowledge.

ANSWERS TO CORRESPONDENTS.—This is a feature almost exclusively peculiar to a few English publications. It is found to contribute very successfully to the interest of the reader, and is the means of affording much useful information. We have made arrangements, by means of which, this branch will be carefully attended to, and all enquiries answered so far as practicable so to do.

Answers to Correspondents.

BANFFSHIRE,—complains that the poetry in last number was altered from its original. The piece was quoted from the 229th number of the FAMILY HERALD, vol. V., and was given exactly as it appears there, without name or remark. Not having at hand a copy of the original it was allowed to go as it stood in that journal—perhaps, after all, not the most authentic source for Scottish poetry.

Agriculture.

STEAM PLOUGHING.

In a recent number of the Herald, we alluded to the invention of a steam plough, and its operations upon the property of Lord Willoughby D'Eresby, which were so far satisfactory as to demonstrate the eventual accomplishment of the ploughing and working of land by means of steam power. It will be remembered that the operation was performed by means of a plough working to and from a stationary engine. This was but the dawning of the rural genius which already begins to unfold itself in all its magnificent proportions. Mr Usher, a brewer in Scotland has introduced a locomotive steam plough which has made some experimental trials in the neighbourhood of Edinburgh with every prospect of success. It is stated that the invention consists of a series of ploughs mounted on an axis. As the ploughs come successively into action they dig up the soil—their actions being something like the paddle-wheels of a steam-boat; and as the locomotive engine passes along, the earth is trenched or dug over. The locomotive engine is mounted on two broad wheels in front, and a broad cylinder behind. The engine-driver sits in front and guides the machine, which in appearance is the same as a common locomotive, but without a tender. The action, however, in the machine is reversed. The weight of the machine is stated to be about five tons, and the engine is of ten-horse power. Water requires to be supplied to the engine from a water-cart, placed at one end of the field.—The machine is calculated for eight or ten rows of ploughs on the axle: but it was only tested with four. These turned over a breadth of about three feet—being equal to four ordinary furrows; while the depth to which the machine was regulated varied from seven to nine inches. When the machine moved at the ordinary rate of the horse plough, there was left a heel in the furrow, such as is usually to be seen in the land ploughed by the common plough; but when the speed was doubled (being at the rate of from four to five miles an hour) this defect disappeared, and the whole soil was regularly and uniformly turned to the same depth. This was the result of the working of the machine with the coulters; but on a trial being made of what it could accomplish without the coulters, it was found that while the work was equally well done, the force of traction was, as in the case of the common plough, considerably diminished. The next trial that was made was to test the power of the machine over a loose surface. This trial was also successful, and showed the capabilities of the machine for re-stirring the soil. The next trial was made with the machine across the ridges; but here the deep furrows were found to be a difficulty—the machine not moving so expeditiously, nor performing the work so equally or so perfectly practicable. By the common method of ploughing, the furrow slice is turned over at about a right angle, while pressure of the plough bakes or hardens the subsoil; and this firming of the subsoil generally interferes considerably with the progress of the roots of the plant, more particularly such as are taper-rooted. This implement of Mr. Usher's, however, does not leave the soil in furrow slices, nor does it stiffen the subsoil; but the land is broken much in the same form as if it had been forked over, stirred twice or thrice by a powerful and efficient grubber. The soil of the field on which the experiment was made was a friable loam, and if a practical man had been brought to the field not knowing how the soil was stirred, he would have pronounced the complete operation to have been the work of a most perfect grubber or cultivator. Some parties who were present considered it an objection that the surface soil was not completely turned down, but this, in the eye of more intelligent practical men, will be regarded rather as a strong recommendation in favour of the machine, inasmuch as the weeds will be kept nearer the surface and more readily eradicated, while at the same time the soil and subsoil will be more thoroughly incorporated. The cost of the engine at present is said to be about £350, but that is a matter of secondary importance, for let a locomotive steam plough be once perfected, doing its work regularly and in a proper manner, and the competition and the ingenuity of our implement makers will soon bring the cost and price down to a more reasonable scale. The *Edinburgh Scotsman* says:—The practical men present appeared to be all surprised at the superior manner the soil was pulverised, as compared with the work done by the common plough, or any other implement at present in use for the purpose of stirring the soil. They at the same time expressed their high satisfaction with the principle of the machine, especially the ease with which it turned at the end of the ridges. And the *Edinburgh Courant* remarks that the feasibility of the invention was admitted by all who saw it, and it was also evident that the principle had reached a very considerable extent of practical development, and that, while several palpable defects could be readily removed, new and most important capabilities might still be added. In one of the experiments, a harrow was attached to the ploughing machine, and it was suggested that were a broadcast sowing machine added, and another harrow, perhaps, to bring up the rear, the whole work of spring might be thus accomplished at once. That steam ploughing will at no very remote period become a practical and profitable agricultural operation there seems to be now every reason for believing.

HIGH FARMING IN JERSEY.

At a recent meeting of the St. Peter's Club in Jersey, some facts were stated by the members which show what can be done by the high cultivation of land. The small farmers of Jersey are, it is well known, extremely industrious and good managers they keep a large quantity of stock, in proportion to the size of their farms, and having everywhere facilities for getting manure from the sea shore, they produce large crops. Mr. Hume, the hon secretary of the club, in contrasting the value of land in Ireland and Jersey, said that in the latter island, the value of agricultural land is from £100 to £200 per acre, and rents from £5 to £10 per acre, "and yet the farmer is an independent man." And the same gentleman afterwards "gave a statement of a small experimental farm he held, which he took six years ago, in bad condition, and paid £7 an acre! He had expended £1721, and its receipts, with the value of stock, were £2182, leaving £158 to credit on thirteen acres in six years, paying a rental, remember, of £7 an acre! He said his intention was to publish the statement, so that the public might be enabled to judge for themselves." What will the carping critics of Mr. Huxtable's Mr. Caird's and Mr. Mechi's statements of high farming say to this?—*Economist.*

Arts and Manufactures.

A WONDERFUL CLOCK.

The invention of clocks has been ascribed to Boethius, about the year 510, but clocks such as are general throughout Britain were not manufactured until between two and three centuries ago, so that if the same construction of clock had previously been in use, at an early period it must have gone into oblivion. The Dutch Clock or 'Wag at the Wa,' in consequence of its cheapness, made an inroad upon the use of the more stable eight-day clock, and again the more tasteful finish, and greater accuracy of the American