In 1862 the receipts were:—

From Dividends	£153	11	3
,, Donations	1148	1	4
,, Subscriptions	1881	16	0
	£3183	8	7

The payments to pensioners were 556*l.*

In 1861, the first complete year in the history of the institution, the receipts were:—

From Dividends	£100	18	9
,, Donations	894	12	10
,, Subscriptions	2004	5	2
	£2999	16	9

The payments to pensioners were 292*l.* 13*s.* 4*d.*

We see at p. 514 (June 2) of our volume for 1860, that the donations and annual subscriptions had then approached 3000*l.* and 700*l.* respectively; but whether any annuitants had been then elected does not appear.

The facts, however, are, that since the 1st of January, 1861, the receipts and payments to annuitants have been respectively as follows:—

Year.	Receipts from all Sources.	Payments to Pensioners.
1861	£2,999 16 9	£292 13 4
1862	3,183 8 7	556 0 0
1863	3,276 13 3	809 0 0
1864	4,444 1 2	974 0 0
1865	4,582 15 7	1,134 0 0
1866	4,819 14 9	1,249 10 0
Total	£23,306 9 4	£5,015 3 4

If the receipts of 1860 were 3000*l.*, then upwards of 26,000*l.* have been received during the seven years ending with 1866, and only 5000*l.* or thereabouts had been expended during that time directly for the purposes contemplated by Mr. MECHI and the original subscribers to the institution which he founded.

What has become of the remainder?

Of course a very large sum has been funded, and exists. We gather from the accounts of 1866 that dividends were received on 15,000*l.* in the autumn of that year: and that 3000*l.* were invested in that year, 2000*l.* of which were probably an addition to this 15,000*l.* And we learn that now, after another year, the sum of 19,000*l.* stands funded in the name of the Association. Add together the payments to pensioners and the sums funded, and subtract the amount from the sums received, and you have the expenditure incurred in the administration of the Society's income. The question of the economical administration of the affairs of the Association is not, however, our present subject. We desire in the meantime to call the attention of the Council of the Royal Agricultural Benevolent Association simply to the fact that with only 57 pensioners on the list at the end of 1866, involving annual payments amounting to 1249*l.* 10*s.*, they were in the receipt of a continually increasing income, amounting in that year to 4800*l.* We happen to know that there were upwards of 100 candidates for admission to the pension list of the Association in May, 1867, for very few of whom were vacancies declared available, and of course very many cases of great distress were necessarily rejected. The advertisement announces that a further admission to the benefits of the society will take place in May next; and that, in addition to these, 10 orphans—the children of farmers—will then be elected on the foundation. This is, of course, a step in the right direction; but it seems to us unquestionable that such a step was needed long ago, and that the society must very largely extend its operations if it is to maintain its reputation.

MANGEL WURZEL, as a farm crop, is now become so general that a few notes on observations and experiments connected with its growth can hardly be otherwise than important. Most botanists concur in the opinion that Beet (*Betterave* of the French) and Mangel Wurzel, among the rooting forms; and the *Poirée*, Fr., or leaf Beet, are all derived from the *Beta maritima* —Sea-side Beet; a not uncommon plant on the sea-coast of England, and, as stated by Mr. BENTHAM, "on rocks and in muddy sands by the sea-shore, in Europe, Western Asia, and Northern Africa, extending northwards to the Baltic." He further adds—"The white and red Beets, or Beetroot of our gardeners, and the Mangel Wurzel (*sic*) (Root of Scarcity) of our agriculturists, are cultivated varieties of this species." (*Handbook of the British Flora*, p. 441.)

The seed of our own sea-side examples, as we know from experiment, are readily susceptible of change; for having some few years since brought some seed from the coast at Bognor, which we cultivated for several seasons, it was found that many of the plants, being acted upon by cultivative processes, among which may be reckoned collecting the seed, sowing it in an inland situation, at a chosen time, in prepared soil — weeding, singling, &c., and subsequent choice of roots preserved for seeding—we had in two generations brought about a root far more fleshy and more symmetrical than that of the wild plant.

We have, then, no difficulty in recognising the fact that the fat-rooted Beets and Mangels in all their varieties, and the forked roots of the Poirées, are the result of cultivating in two different directions; the object of the first being to produce a massive root, in the second large succulent leaves. In both of these cases, therefore, selection must continue to be practised in order to the improvement of any particular strain. And in any experiments on the growth of Mangel Wurzel, it is important to bear this fact in mind, as success will in great measure depend upon the exercise of judgment in these particulars.

Our own crop of Mangels for 1867, which we have made experimental on the principles already often laid down, consisted of the following sorts:—"Suttons' Mammoth Long Red" Mangel Wurzel; Suttons' Mammoth Long Yellow" ditto; "New Yellow Intermediate" ditto; and "Purple Beet." Intermixed with these was a considerable breadth on one side of the field occupied with Orange Globe from seed of our own growing.

The soil on which the seed was sown is the stone brash of the inferior oolite which here rests on a substratum of inferior oolitic sands—not the best soil for our purpose, but still the field came in for roots, and we thus did not deviate from our ordinary course of cropping. The land was dressed with about 10 tons of ordinary farm-yard dung, which was ploughed in in winter. In the spring it was scarified twice by means of FOWLER'S double engine set of steam tackle. After clearing and fining down, 3 cwt. of PROCTOR'S root-manure per acre was sown broadcast, and upon this bed the seed was drilled on the flat at the distance of 20 inches apart for the rows as late as May the 15th, the plants being well up by the 3rd of June. The sorts were placed in the following order, which we give for the sake of some practical observations which resulted therefrom:—

Long Red	*	*	*	*	*	*
Long Yellow	*	*	*	*	*	*
Intermediate	*	*	*	*	*	*
Intermediate	*	*	*	*	*	*
Orange Globe	*	*	*	*	*	*
Orange Globe	*	*	*	*	*	*
Long Yellow	*	*	*	*	*	*
Long Red	*	*	*	*	*	*

About half the field was occupied by this alternate arrangement, the other half was sown with Yellow Globe, and the whole was separated from a plot of Cabbages by a single row of the Purple Beet. The plants were singled to the distance of 14 inches in the row, except a few rows of the Orange Globe, which were singled out a little more than half that distance. It had been intended to have used the leaves of a few rows, and to have weighed the roots against those not plucked, but, as it turned out, Nature had performed this mutilating process, inasmuch as a long period of dry weather had spoiled all the outer leaves.

The result in round numbers was estimated as follows:—

TABLE OF PRODUCE OF MANGEL WURZEL, &c.

Name.	Distance apart of Rows.	Distance in Row.	Weight per Acre.
	Inches.	Inches.	Tons.
The five sorts	20	14	35*
Long Red	,,	,,	35
Long Yellow	,,	,,	31
Intermediate	,,	,,	37
Orange Globe	,,	,,	37
Yellow Globe	,,	9—10	32
Purple Beet	,,	10	27

An examination of this crop at the time of pulling suggested the following notes:—

1st. The sowing and singling of all the sorts at the same distance was a mistake, as the Long Red would have grown a greater crop if the distance had been greatly increased; as it was, there were some remarkably fine roots, but these were evidently grown at the expense of their neighbours, by which they were overshadowed; all were too thickly planted.

2d. The sorts should be kept separately, as the taller varieties overtop the bulboid forms, much to their prejudice.

3d. In singling, the distance of from 12 to 14 inches generally adopted in the west of England is a mistake; and our experiment fully proved that a less yield was the consequence of leaving the plants too thick. It was at the margins of the field that the largest roots of all kinds were met with.

4th. The Yellow Intermediate Mangel is a sort with a fine smooth skin and few rootlets; it can be grown thicker than the rest with advantage, and at the distance of our examples gave the best yield from their regularity in size and outline, and the slight amount of waste.

5th. The Orange Globe was more forked in the roots than usual, so much so that our men considered it worth double to pull them when compared with the Intermediate. We account for this from its being our own seed—and that, too, a second generation of it from the original stock—and also from its having been sown on the like kind of soil in each rotation. This digitation of root is a mark of degeneracy.

6th. We consider Beets unprofitable for a field crop, and the tolerable yield tabulated can only be accounted for from the fact that our sample was grown in a large field on the margin of the Mangel ground, and therefore was not interfered with by Beets and Mangels on all sides.

Further, it may be observed that as the different forms experimented upon are themselves the result of selection—selection from new sources is ever advisable, and repetition of one's own seed is to be avoided. *B.*

* These are estimated in round numbers, but the weighed crop was 35 tons 10 cwt.

— Messrs. KINGSFORD & LAY report that business in the corn market throughout the kingdom at the commencement of the past week has been dull, but that during the last few days a firmer feeling has prevailed. The price of Wheat yesterday in Mark Lane may be quoted at about the same as was obtained on the previous Friday.—At the Metropolitan Cattle Market on Monday the supply, though smaller than usual, exceeded the demand; the trade in sheep was, however, a little better.—Prices have rather advanced during the week in the Wool market, lustre wools and the better grades of Downs being most in request.—The arrivals in the Potato market during the week have been limited, and the best sorts command 8*l.* to 8*l.* 10*s.* per ton.

— We call the attention of our readers to the following letter and request from Mr. DARWIN:—

TO THE EDITOR OF THE AGRICULTURAL GAZETTE.

Sir,—I should be very much obliged to you or to any of your readers, if they would have the great kindness to refer me to any observations which may have been published on the proportional number of males and females born to our various domestic animals, such as cattle, sheep, horses, dogs, poultry, ducks, &c. I presume that this point has often been attended to, but I am at a loss where to search, and should be grateful for any reference or for any unpublished facts.

Sir, your obedient servant,
CHARLES DARWIN.

Down, Bromley, Kent, S.E., Feb. 11.

— Mr. DUNCAN, of Mincing Lane, to whose proposal on the subject of Sugar Beet we last week called attention, is about to issue a statement of the conditions on which he will undertake the purchase of the crop. Among these conditions the most important is, that no farmyard or other manure is to be applied to the land during the current year. He does not object to bone-dust, but anything in the nature of farm dung must, if applied at all, have been put in during the previous autumn. We add Mr. CAIRD'S letter on this subject, which appeared in the *Times* of last Saturday:—

Sir,—The question of supplying from our own soil a portion of the vast consumption of sugar in the United Kingdom is too important to be allowed to rest on an experiment which failed in Ireland 20 years ago. The success of Beet sugar farming in the north of France and Belgium, in the same latitude, and on similar soil, may fairly tempt us to try the experiment in England. Great improvement has been made in the processes of manufacture within the last ten years. Improved hydraulic presses have increased the yield of sugar from the roots, the introduction of carbonic acid greatly facilitates the clearing of the juice, and the use of steam, passed from one evaporating pan to another, has cheapened the cost of evaporation. The pulp, when squeezed dry in the state it leaves the hydraulic press, is said to keep fresh stored in pits in the ground for two years, and retains every quality except the sugar. It can thus be most conveniently used for cattle feeding, and its consumption on the farm secures for the land almost the entire benefit of a home-consumed green crop. A sugar refiner in the city, Mr. James Duncan, of 9, Mincing Lane, who at present uses 300 tons of French Beet sugar a week, is desirous of making a beginning, and is so well satisfied with the sugar-producing qualities of English-grown sugar Beet, as tested by himself, that he is willing at his own cost to take the risk of erecting buildings and machinery for the extraction of the sugar. He proposes to place these near a railway station, in a good root-growing locality in one of the Eastern Counties, and is prepared to contract for 6000 tons of roots in the coming season, at 18*s.* a ton. He intends to carry the process of manufacture here no further than the extraction and thickening of the juice to such an extent as will enable it to bear carriage to his sugar refinery at the Victoria Docks, where it will be mixed with West India sugar, and the process of manufacture be completed. The dry squeezed pulp will be returned to the farmer at little more than a nominal