

III.—*Observations on Tasmanian Statistics for the Decennial Period 1844 to 1853, (compiled from Official Sources, and published by Authority). By JAMES BARNARD, Esq. [Read 11th October, 1854.]*

SINCE the date of the last published statistics of this colony in 1849, upwards of four years ago, the changes that have taken place in the fortunes of Australasia, by the magnificent gold discoveries in New South Wales and Victoria, and slightly shared in by Tasmania, have invested the authentic records of the progress made by even the smallest and weakest of the group with an interest, not only in the eyes of those locally concerned, but in the estimation of the whole civilized world.

Secondary as she may be in point of size, and comparatively insignificant as she certainly is in extent of population, yet it may be affirmed that, of all the colonies planted in this hemisphere, Tasmania more fully displays the verisimilitude which would justify the appellation of the Britain of the South. The parallel is close and striking. In insular position,—bold and picturesque scenery,—sheltered harbours,—climate and soil adapted to agriculture,—forests of splendid timber, scarcely, if at all, inferior to the English oak,—ship-building,—whale fisheries,—an unlimited supply of the best quality of coal for steam, gas, and domestic manufactures, besides immense beds of iron ore, limestone, freestone, &c.,—all these, with other advantages superadded of free institutions and universal education, combined with mental energy and industry of character, comprise the elements of national wealth and prosperity, which cannot fail in their

ultimate development to acquire a renown for commercial and manufacturing and moral greatness, and for the cultivation of the arts of peace, second only to her English prototype.

The object of the present paper is to tread closely in the footsteps of those which have been previously submitted on the same subject; and to present an analysis of the statistical returns for the decennial period referred to, with especial reference to the modifying effects of the Gold-fields upon the condition and interests of Tasmania.

Table 1 exhibits the population of Tasmania, exclusive of the military and their families, as ascertained by census taken on 31st December, 1841, and 1847, and March, 1851. The population is also shown on the 31st December of each of the three years ending 1853,—which has been calculated by adding to the census last taken the births and arrivals, and deducting therefrom the deaths and departures, for the intervening periods respectively.

The aggregate population, then, at the last authentic registration in March, 1851, was 69,187, of whom 34,070 or 49·2 per cent. were adult males, 15,996 or 23·1 per cent. adult females, and 19,121 or 27·6 per cent. children. This census, it must be borne in mind, was taken about two months prior to the rise of the gold discoveries in the sister colonies; and the disturbing effects produced upon the population, and upon the ratio of the sexes, will be seen by a comparison of the figures in the subsequent returns. Thus the arrivals in 1851 were in all 6076, and the births 1840; while the departures were 6613, and the deaths 993, making the total number of souls in the colony at the end of that year 69,497, in the several proportions of 46·3 per cent. men, 23·8 per cent. women, and 29·9 per cent. children. During 1852 the births were 2114, and the arrivals 15,203;

while the deaths were 1452, and the departures 21,917,—making the total 63,445, in the respective proportions of 39·2 men, 25·5 women, and 35·2 children, being a deficiency of 6052, or nearly 9 per cent. of the whole, upon the year. During 1853 the births were 2,233, and the arrivals 14,977, while the deaths were 2017, and the departures 12,684,—making the total 65,954, or 4 per cent. increase upon the year preceding, but still a decrease of 5 per cent. as compared with 1851; the proportion of adult males being 39·3 per cent., adult females 24·7, and of children 36 per cent.

The disastrous effect upon our labour market in diminishing the adult male population of this colony, thus depriving it of its thews and sinews, is strikingly apparent from the figures in this table; for, while there is a steady progressive increase in the per-centage of women and children, there appears a positive decrease in the number of men of 23 per cent. at the end of 1853 as compared with the census of 1851. The disturbing influence this must have exercised upon the social and domestic condition of the Colony, and the check upon its industrial prosperity and advancement, is too plain to need remark. It is most satisfactory, however, to notice the considerable increase in the number of children, constituting as they do the germ of a future people.

Of the aggregate population the convicts constituted, in 1851, 28·8 per cent.; in 1852, 30 per cent.; and in 1853, 25·3 per cent.; and the proportion of the males to females was, upon the average, as 3 to 1.

The stain upon the Tasmanian escutcheon of being a penal settlement having, happily, been effaced by Her Majesty's Order in Council, the existence of a servile class in the community is fast diminishing, and must, in

the very nature of things, cease altogether within a comparatively short time.

Table 2 shows the number and distribution of the convicts in the colony, and spreads over a period of ten years. In 1844, the total number which arrived in the colony amounted to 4966; in 1850 it was 2910; and in 1853, when transportation had finally ceased, 1480. In 1851, the total of both sexes was 20,069; in 1852 it was 19,105; and in 1853 it had gradually declined to 16,745, with the prospect, as before remarked, of a rapid diminution annually in the numbers of this class until its total extinction. The proportion of males to females is, upon the average, as 3 to 1. The total number of convicts is divided into those who maintain themselves, averaging 77 per cent., and those who are maintained by the Government, 23 per cent. With regard to the former of these two divisions, considering them in the light of quasi free, mingling as they do in the general community, no further notice need be taken of them here; and as to the latter division, or those maintained by the Government, 24 per cent. are under probation, 62 per cent. under sentence, 13 per cent. in hospital or invalids; and the number of males to females coincides with the general proportion of 3 to 1.*

Tables 3, 4, and 5 show the total number of births, deaths, and marriages in the colony which have been registered

* By a Council paper it appears that on the 1st of August, 1854, there were 13,456 convicts of all classes of both sexes; of whom 10,174, or 75·6 per cent. were earning their own livelihood, and 3282, or 24·3 per cent. were maintained by Government. Of the whole number it was estimated that 10,000 would be released from their convict condition by the 1st of April, 1856; and that on that date 3500 would remain, of whom it is probable that one-half would be maintaining themselves.—The expenditure for this service for 1854–5 was estimated at £205,385; and for the year ending 31st March, 1856, at £132,553,—making a diminution of £72,832 in the expenditure for that year.

during the last ten years. Of the births, the proportion to population upon the average of the three years 1851 to 1853 is as 1 to 30,—the average population being 66,298, and the average births 2142; and the excess of males over females upon the average of the ten years is 4 per cent. The number born in 1853 was 1194 males and 1039 females, or a total of 2233.

Of the deaths, the increased mortality of the last two years from the scourge of epidemics is painfully evident from their increased proportion to population; the ratio being in 1851 as 1 in 62, in 1852 as 1 in 43, and in 1853 as 1 in 32. The males who died in 1853 were 1138, and the females 879, making a total of 2017 deaths, nearly equalling the births it will be seen, and being in the ratio of 3·3 per cent. to population. It must also be noted that the deaths of convicts are not registered in the several registry offices.

Of the marriages, the number solemnized in 1851 was 993; in 1852 the number had increased to 1213, or an addition of 22 per cent.; in 1853 they had further increased upon a diminished population to 1479, or 21 per cent. upon the preceding year,—one effect of the gold fields with which the experience of all present may be familiar, as being caused in great measure by the numerous lucky diggers upon their return from Victoria selecting brides to share their good fortune. Again, of the marriages performed in 1853, 57·8 per cent. were celebrated according to the rites of the Church of England, 7·6 per cent. the Church of Scotland, 21 per cent. the Church of Rome, 3·9 per cent. the Wesleyans, 5·3 per cent. the Independents, 3·4 per cent. the Baptists. The Jews record 2 weddings, and the Deputy Registrars 5.

Tables 6 and 7 show the extent of emigration to and from Van Diemen's Land, exclusive of the troops, together

with the total expense incurred by the Government for immigration during the last two years. No return is given of the number of immigrants prior to 1851 : indeed, for years past it must have been too insignificant for record ; but in that year 4348 arrivals are noted, 12,852 in 1852, and 16,808 in 1853. But of these large numbers the real immigration was but a fraction, comprising those only who were introduced at the public expense ; viz., 418 or 9·6 per cent. in 1851 ; 220 or 1·7 per cent. in 1852 ; 1831 or 10·9 per cent. in 1853.

The expenditure on account of immigration for the three years has been, for the Department, including cost of office, lodging, salaries, gratuities, &c., £4475, remittances to England £39,765, making a total of £44,240.

The departures from the colony are recorded from the year 1847, averaging about 4000 a year down to 1850, of whom about 1500 annually were persons who had been convicts. In 1851 the number had risen to 7463, in 1852, 21,920, and in 1853, 12,684 ; and of these the proportion who had been convicts were, in 1851, 2713, or 36·3 per cent. ; in 1852, 7357 or 33·5 per cent. ; and in 1853, 3096 or 23·6 per cent.

Perhaps it will explain the movement of the population since the gold discoveries more clearly by stating that 34,008 persons arrived in the colony during the three years 1851 to 1853 ; and that 42,067 quitted it during the same period,—showing a decrease in the number of inhabitants of 8059, or 10·1 per cent., as compared with the census of March, 1851.

Table 8 exhibits the value of the imports and exports for the ten years ending with 1853. Prior to the opening of the gold fields, the commerce of the colony was slowly but steadily advancing ; but that grand discovery imparted

an extraordinary activity to its trade, and stimulus to its agriculture, which, notwithstanding the great drain upon its labour market, has contributed largely to the general prosperity of Tasmania.

In 1851 the value of the imports was £641,609; in 1852 it was £860,488, or an increase of 34·1 per cent.; and in 1853 it reached the enormous amount of £2,273,397, being 164 per cent. increase upon the preceding year. The ratio of imports to population was, respectively, £9 4s. 7½*d.* per head in 1851; £13 11s. 3*d.* in 1852; and £34 9s. 4½*d.* in 1853,—exceeding, perhaps, that of any other British colony, Victoria alone excepted.

The corresponding exports for the three years cited were £665,790 in 1851; £1,509,883 in 1852; and £1,756,316 in 1853; the ratio of exports to population being respectively £9 10s. per head in 1851, £23 15s. 10*d.* per head in 1852, and £26 10s. 3*d.* per head in 1853.

Taking the average of the imports for the last three years, and doing the same with the exports, and dividing by the average population for the same period, it gives £18 19s. 9*d.* per head as the imports, and £19 15s. 4*d.* per head as the exports, of the entire population, during the three years that the gold-fields have been in operation. The balance of trade, upon the calculation of the same period of three years, was £156,505 in favour of the colony,—clearly denoting, under the feverish and exciting circumstances of the times, the particularly healthy state of our commercial relations.

Table 9 is a return of the shipping employed in the whale fisheries for the same decennial period; and, as might be predicated, apart from the uncertainty ever attending this precarious branch of commerce, fully exemplifies the injurious effects of the gold mania upon the ordinary pursuits of industry. In 1850 there were 40 colonial and 9 foreign

vessels, having a tonnage of 12,503 engaged in whaling ; in 1851 the number was 26 colonial, and 14 foreign, of 11,225 tons ; in 1852, the colonial vessels were 18, and the foreign 18, of 10,299 tons ; and in 1853 the former were reduced to 7, and the latter to 2, with a tonnage of 2607 only,—brought down to the lowest ebb known in the history of the fishery since its first establishment.

It would thus seem that whaling has suffered more than almost any other branch of industry ; a result indeed which might be naturally expected, seeing that the same enterprising disposition which would lead a man to cast his fortune upon the chance of acquisitions from the depths of the ocean, would be likely to induce him to be one of the very first to join in the rush to the gold-fields even upon a similar uncertainty of acquiring wealth from the bowels of the earth.

Table 10 shows the total value of the timber imported and exported during the same decennial period. The growth of the timber trade is remarkable, as being almost the sole branch of colonial industry which has thriven amidst the general declension ; and which must be ascribed to the extraordinary stimulus communicated to the pursuit by the golden prices realized in Melbourne for sawn stuff, yielding extremely handsome returns even after paying the most exorbitant wages to the sawyers.

In 1844 the value of timber exported was £3577 ; in 1847 it had reached £15,414 ; in 1850, £55,869 ; in 1851, £32,726 ; in 1852, £89,507 ; while in 1853 it rose to nearly half a million sterling.

In 1851, during the first year of the gold discoveries, it will be noticed that the timber trade suffered in common with other branches of our staple industry, and the export was actually lower than it had been for the two preceding years. In 1852, when a large amount of capital had been

actually realized at the gold-fields, and become available in Melbourne for investment,—and when population was pouring into that city from all parts of the world, and the necessity for accommodation, and even shelter from the inclemency of the weather, had become urgent,—then the demand for timber grew from day to day, and prices rose out of all proportion. Hence the value of the export of timber from Tasmania in 1852 became triple that of 1851, and in 1853 more than five-fold what it had been in 1852; luring back to our Tasmanian forests many of the adventurers, who found that the gold-fields, after all, were less profitable, and much more precarious, than the rewards offered to the steady application of labour in this department of industry.

The imports of timber also, consisting of cedar from New South Wales, pine from New Zealand, but chiefly of deals from America and the north of Europe, take a sudden spring from £1341 in 1852 to £24,057 in 1853; an increase sufficiently explained by the high prices which, as has been already stated, stimulated our own timber trade to such excessive production.

Tables 11 and 12 are returns of the quantity and value of grain and flour imported and exported during the same period of ten years. The steadiness of the imports of these prime necessities of life was at once affected by the general rush to the gold-fields, and the consequent check to the cultivation of the land. In 1850 the total value of these imports was £1860; in 1851 it had increased to £4402, or 136 per cent.; in 1852 to £14,294, or 224 per cent.; and in 1853 to £75,627, or 429 per cent. The timely supply of American flour balanced, in some measure, our own additional exports of breadstuffs, and helped to feed our own population. The exact quantity of each description of

grain imported cannot be stated with precision, as the indefinite term "package" is much used in this return without the means of attaching to it its precise weight or measure.

The return of the export of grain and potatoes strikingly shows the highly remunerative character of this branch of our commerce, and the active stimulus that the golden market of Victoria imparted to agricultural industry: for while there has been an actual decrease in the quantity exported as compared with preceding years, with the exception of potatoes, which has doubled, the value of these exports has nearly trebled. In 1849, when there was shipped 296,236 bushels of wheat, 112,164 bushels of oats, 4172 tons of flour, and 3003 tons of potatoes, the total value was £114,635; but in 1853, when there was shipped only 20,673 bushels of wheat, 144,028 bushels of oats, 4801 tons of flour, and 6783 tons of potatoes, the value was £315,153, or 200 per cent. increase.

Agriculture, it will thus be seen, like every other branch of industry, has shared in the general stimulus imparted; but, from the circumstance of farm labourers, as might be expected, having been attracted to the gold-diggings, the produce has been diminished, and the exports reduced, in 1853, to one-seventh of what they were in 1851, and to a little more than a tenth of what they were in 1850—potatoes only excepted. The value of our exports of breadstuffs being, on the contrary, in 1853 three times what they were in 1850, depends chiefly upon the enormous rise in price—which, doubtless, would have ruled higher still but for supplies from America and Europe in even larger quantities than the market required,—insomuch that it not only indirectly acted there in lowering our prices, but directly in being re-exported and sold in our own market.

During the three years of the gold-fields, the average export

annually of our chief agricultural products has been 87,342 bushels of wheat, 146,838 bushels of oats, 4751 tons of flour, and 4096 tons of potatoes ; and the average value of these exports has been £251,532. Comparing the average of these years with the exports of 1849, it is worthy of note that the value has increased 119 per cent., while the decrease in the quantity of wheat exported has been upwards of 200,000 bushels. There has been an increase, however, of 25,000 bushels of oats, 579 tons of flour, and 1093 tons of potatoes.

Table 13 states the quantity and value of butter and cheese imported and exported for the last ten years ; and shows that the trade in these products of the dairy has shared in the general colonial prosperity. In 1851 the value of these imports was £1761 ; in 1852, £5269 ; and in 1853, upwards of £17,000. The corresponding exports were, respectively, £4324 in 1851 ; £7251 in 1852 ; and £19,548 in 1853. No comparison can be made of the relative quantities, from the indefinite term “ package ” being for the most part adopted. It may be, and is most likely, as in the case of grain, that the increased value of these exports is due to the greatly enhanced price of the articles.

Table 14 states the number of the various descriptions of live stock that have been imported and exported during the past ten years ; and its examination shows that the gold-diggings have produced effects in this instance which have tended to neutralize each other. On the one hand, there have been realized by the colonists since 1851 very high prices for their stock, especially for horses sent to Victoria, many of which have fetched immense sums ; while, on the other, the cattle and sheep imported have been considerably enhanced in cost to the consumers from the great scarcity of meat.

Our exports during the last three years consisted of 320 head of cattle, 4107 horses, and 11,217 sheep, of the declared value of £100,590; and the imports for the corresponding period were respectively 16,308 head of cattle, 61 horses, and 152,023 sheep, valued at £153,687.

Of the imports, the value in 1851 was £22,385, or 27 per cent. increase upon 1850; in 1852, £49,754, or 122 per cent. increase; and in 1853, £81,548, or 63 per cent. increase; and of the exports, the value in 1851 was £19,064, or 173 per cent. increase upon 1850; in 1852, £53,127, or 178 per cent. increase; and in 1853, £28,399, or 26 per cent. decrease upon the previous year.

Table 15 shows the value of the hides, skins, and leather, manufactured and unmanufactured, which were imported and exported during the last ten years, and calls for no special remark. Upon the average of the last three years, the value of the imports, and of the exports, in this department of commerce was about £10,000 respectively, thus balancing each other.

Table 16 shows the quantity and value of wool and oil exported from the colony from 1844 to 1853. As to the former of these staples, wool, it is cheering to know that the scarcity of labour arising from its withdrawal to the gold-fields has had no effect in diminishing the quantity produced; and also that a much higher value is given to the exports of the last three years from the rise of price in the English market. As to the latter of these staples, oil, the diminished quantity of this most important product of colonial industry has been already adverted to: but in this case also the advance in value upon the smaller yield in some measure compensates for the deficient supply. Of the wool, the quantity exported in 1853 was 19,524 bales, of the declared

value of £326,096, and of the oil, the quantity was 339 tons only, valued at £30,106.

Table 17 sets out the quantity and value of the gold dust exported, or rather re-exported, from Tasmania; it having been mostly brought hither from Victoria by the successful diggers from this colony. The returns are, of course, for the years 1851 to 1853,—and are as under:—

	OUNCES.	VALUE.
1851.....	7,636	£24,717
1852.....	145,420	£472,615
1853.....	59,054	£217,538

The total quantity exported for the three years is 212,110 ounces; and its declared value £714,870, or at the rate of £3 7s. 4 $\frac{3}{4}$ d. p ounce.

Tables 18 to 21 relate to the shipping interests of Tasmania independently of the whale fishery. The stimulus to commerce from the gold-fields is seen at once by the increased amount of shipping which has since visited our ports. In 1850 the number of vessels inwards was 674, being an increase of 4 per cent. over 1849; in 1851 the number was 782, or 16 per cent. increase; and in 1853 there were 1024 vessels, or 29 per cent. increase. The tonnage in 1850 was 104,017, and in 1853, 192,420; its progressive increase having been, 1851, 15·5 per cent.; 1852, 12·7 per cent.; and 1853, 42 per cent. Upon the average of the three years, the proportion of shipping annually from Great Britain was 49 vessels, 21,726 tons; from the British Colonies 771 vessels, 115,465 tons; from the United States 18 vessels, 7061 tons; and from foreign states 18 vessels, 5096 tons.

In 1852 the comparatively small increase of vessels, at a time when the stimulus to colonial trade was so powerfully felt through the operations of the gold-fields, is obviously

due to the fact, that many of the vessels which would have come hither were attracted to Victoria ; but in 1853 a reaction had taken place to a certain extent, and the trade to Victoria had been overdone, and exporters had found out that consignments, which had ceased to yield profitable returns in Melbourne, might still meet with an advantageous market in Tasmania,—and hence the comparatively large increase in 1853. It would also appear, from the increase in tonnage as compared with the number of vessels employed, that they must have been of a larger calibre than had previously visited our ports.

Of the vessels outwards the total number in 1850 was 702, and the tonnage 104,848 ; and in 1853, 999 vessels and 188,279 tons : the progressive rates of increase being 1851, 12 per cent. ; 1852, 5 per cent. ; and 1853, 21 per cent. : the increase of tonnage being respectively 13 per cent. in 1851, 14 per cent. in 1852, and 38 per cent. in 1853. Upon the average of the three years, the proportion of shipping annually to Great Britain was 31 vessels, 8749 tons ; to British Colonies 804 vessels, 124,239 tons ; to the United States 20 vessels, 5964 tons ; and to foreign states 25 vessels, 8801 tons. Of the whole tonnage inwards the proportion from Great Britain is 15·8 per cent., from British Colonies 81 per cent., from the United States 1·2 per cent., and from foreign states 1·7 per cent. ; and of the whole tonnage outwards the proportion to Great Britain is 4·7 per cent., to British Colonies 88·3 per cent., to the United States 0·5 per cent., and to foreign states 6·3 per cent.

Ship-building was rapidly advancing in importance as an industrial pursuit at the time of the gold discoveries, from which it received a severe check that it has not yet recovered from ; but, like other branches of trade, it appears to have reached the lowest point of depression, brought about by the

disturbing influence of the gold-fields, and will now, no doubt, take a fresh start fostered by the accumulation of capital. It may be as interesting to trace its progressive rise as to notice the gradual decline since 1850. In 1844 the tonnage of shipping built was 350 ; in 1845 there was an increase of 50 per cent. ; in 1846, of 80 per cent. ; in 1847, of 70 per cent. ; in 1848, of 46 per cent ; in 1849, of 22 per cent. ; and in 1850, of 10 per cent. In 1851 there had been a decrease in the number of vessels built of 57 per cent., in 1852 of 35 per cent., and in 1853 of $1\frac{1}{2}$ per cent. The vessels registered, on the contrary, have increased in number, showing that such addition to our colonial marine must have been made by purchase in other ports ; and such we know to have been the case. In 1850 there were 78 vessels registered ; in 1851, 99 ; in 1853, 107, with an average of 11,500 tons.

The fact of there being two Patent Slips in course of construction at the present moment,—involving a considerable outlay of capital,—would seem to indicate the confidence that the advantages which the Port of Hobart Town presents as a station for building and repairing vessels will be likely to attract hither a still increasing amount of shipping.

The steam marine of the colony has also received an impetus ; for in 1850 there were only two steam vessels employed on our rivers, of 139 tons and 52 horse power in all. In 1853 the number was 5, of 1221 tons and 357 horse power ; and of these the three additional steamers are built of iron. It is gratifying to know that enterprise is planning and accomplishing much in this valuable department of our inter-colonial and coasting trade ; and also that the colony possesses so largely within herself the means of supplying suitable coal for the prosecution of such useful undertakings.

It is well known that, in addition to those registered at our ports, there were other steam vessels trading regularly with this colony, besides occasional visitants.

Table 22 shows the amount of revenue derived from the sale and leasing of crown lands for the same decennial period ; and the results presented for the years subsequent to the opening of the gold-fields afford conclusive proof of the soundness of the prosperity enjoyed by the colony. In 1850 the total land revenue was £28,444; in 1851 it had increased 8 per cent.; in 1852, 37 per cent.; and in 1853 it reached £90,690, or 113 per cent. increase upon the year preceding.

In 1850 the proportion of receipts from the sale of waste lands was 16 per cent.; in 1851, 21 per cent.; in 1852, 15 per cent.; and in 1853, 55 per cent.

Table 23 is a return of the number of mortgages effected upon property, and of the sum total, for each of the last ten years respectively. Dividing the whole into two quinquennial periods, and comparing them together, the mortgages were fewer in number by 23 per cent., and less in amount by 29 per cent., during the last five years than during the five preceding.

Tables 24 and 25 represent the monetary condition of the colony, as shown in the extent of its metallic currency, and in the operations of the several banks as disclosed by their returns of assets and liabilities, for the ten years 1844 to 1853. Irrefragable evidence, if any were wanting, is hence presented of the acquisition of wealth by the colony since the opening of the gold-fields ; and also of the sound basis upon which its four large banking establishments are conducted,—so amply justifying the confidence reposed in them.

The whole amount of coin in the banks and military chest in 1850 was £239,417, being an increase of 13 per cent. upon

1849. In 1851 the increase was too trifling to deserve notice. In 1852 the amount had increased to £621,419, or 160 per cent. upon 1850. In 1853 it had still further increased to £1,375,352, or more than double the sum in 1852. By way of contrast it may be stated that in 1844 there was scarcely more than one-tenth of the amount of specie in circulation.

The bills of exchange in the banks in 1853 represented rather more than one million sterling, being 34·6 per cent. increase upon 1852, and showing a legitimate expansion of business as compared with the increasing commerce of the colony; the increase of 1852 upon 1851 having been only 1·4 per cent.

The paper currency of the banks will show a corresponding enlargement called for by the growing necessity for meeting the demands of commerce. In 1850 the total issue of the banks was £61,777; in 1851, £99,120 or 60 per cent.; in 1852, £202,688 or 104 per cent.; and in 1853 the issue increased to £246,532 or 21·6 per cent. upon that of the preceding year.

The aggregated deposits in the banks in 1850 were £368,680; in 1851 they increased to £503,330 or 36·5 per cent.; in 1852 they had more than doubled, amounting to £1,026,020; and in 1853 had reached £1,876,112, or 82·8 per cent. increase upon the year preceding.

It will, perhaps, exhibit in a more clear and striking light the degree of prosperity attained by the colony from its proximity to the gold-fields, to state that the bank deposits for 1853, divided by the total population, would give £28 8s. 10d. for each soul in the colony. This simple fact would dispel every doubt, if any such existed, of the sound and healthy character of the prosperity enjoyed by

the colony,—unparalleled, perhaps, in the history of any British Colony in the world, Victoria not excepted.

To complete the analysis of these bank returns, it remains to say that the total liabilities of all the banks amounted in 1853 to £2,122,644, and the assets to £2,396,109, or an excess of assets of 11·4 per cent.

Tables 26 and 27 show the relative amounts of the general revenue and expenditure of the colony for the last ten years; and, as might be anticipated, the annual returns since 1850 exhibit the influence of the gold discoveries. The revenue in 1850 was £135,429; in 1851 the increase was 3·1 per cent.; in 1852, 29 per cent.; and in 1853 it reached £257,872 or 42·4 per cent. upon that of the preceding year. The expenditure has also necessarily increased, though not in the same proportion. For the years 1850 to 1852, it as much as possible agreed with the amount of revenue; but in 1853 the public expenditure was £191,443, leaving a surplus of revenue of £66,429, or 26 per cent. These statements are exclusive of the land revenue, which has already been referred to.

Table 28 presents the statistics of the Post Office of the colony for the past ten years, of which the return for 1853 possesses more than usual interest, as showing the effect upon the revenue of the new postal arrangements, which have been assimilated with those of the mother country by reducing the postage, and making prepayment compulsory. The result seems to have amply justified the expectations entertained of its success. As compared with 1852, the number of post offices have increased from 53 to 62, the persons employed from 86 to 93; the miles of post roads travelled over from 647 to 662; the letters sent from Hobart Town from 203,305 to 220,473, or 8·4 per cent.; the letters

received from 157,611 to 189,847, or 24·5 per cent.; the newspapers forwarded from 189,961 to 222,940, or 12 per cent.; and the newspapers received from 68,121 to 102,497, or 50 per cent. increase.

As respects the working of the two-penny post, or rather penny post in 1853, the increase of letters has been considerable. Independently of the franked letters, the numbers passing through the post offices in 1851 were 12,125; in 1852 they numbered 15,815, or 30 per cent. increase; while in 1853, by the penny post, they amounted to 26,293, or 60 per cent. increase upon the preceding year.

The receipts in 1852 were £8303, and the expenditure £7361, or a deficiency of 11·3 per cent.; in 1853 the receipts were £9880, and the expenditure £11,091, or a deficiency only of 12·2 per cent.,—notwithstanding the sacrifice of revenue from the abolition of postage on all the inland letters, and the great additional cost of conveying the mails. At the same time, it may be questioned whether some portion of this improvement may not be due to the general expansion of trade rather than to the modification of the postal arrangements.

Tables 29 and 30 are returns by the Registrar of the Supreme Court of the number of civil cases tried and disposed of, and of convictions under its criminal jurisdiction, for the ten years 1844 to 1853; and it must afford unalloyed satisfaction to perceive a reduction to the extent of about one-half in both branches of the business of the Court for the last five years as compared with the former similar period. From 1844 to 1848 the number of actions tried and assessed was 188: from 1849 to 1853 the number was only 86. The number of convictions for felonies and misdemeanors for the first of these terms was 1087: for the last, 559. Something of this, of course, is due to the

diminished population of the last three years; but much more to the prosperity of the colony generally, and the withdrawal of the inducements to crime against property from the abundance of employment at high, not to say exorbitant, rates of wages.

Table 31 is the Sheriff's return of the executions which have taken place for a similar period, and is not quite so favourable; the number of criminals executed for the first five years being 61, and for the last 47, or a reduction of 22·9 per cent. If crimes against property have diminished, crimes of violence it is to be feared have increased, attributable to the very prosperity itself enjoyed by the colony from the excesses and lawlessness produced by extravagant wages, leading to drunken broils and the letting loose of the brutal passions of the ignorant and turbulent.

Table 32 is a return from the Principal Medical Officer of the number of Lunatics in confinement at the New Norfolk Asylum and the Salt Water River Station for the years 1844 to 1853. The results of the medical treatment adopted are exhibited in the several columns of "discharged cured," "discharged improved," "died," and remaining supposed incurable. The return stretches over a period of nine years only, omitting 1844. Adding each column together, and taking the mean, it gives an average of 208 patients kept in confinement, and 60 as the average number admitted annually. Of the total, the discharged cured are 12·4 per cent.; the discharged improved, 1·4 per cent.; and the deaths 8·6 per cent. annually upon the average of the nine years. Again, of the whole number, the average is 66 per cent. of convicts; and of these the proportion is as 2 males to 1 female. Of the free, in like manner, the average proportion of males is 62·4 per cent. In a note it is added, that on the 31st December, 1853, there was a grand total of

250, of whom it is said that 215 are supposed to be incurable, viz. 150 males and 65 females. Compared with the population, it gives 0·38 per cent., or as one lunatic to every 263 persons.

Tables 33 to 37 are four important returns from the Chief Police Magistrate, bearing upon the industrial resources of the colony in respect to its agriculture, its trade, and manufactures.

The number of acres in crop, the nature of the crop, and the produce, are given in the first of these tables; and an examination of its figures fully confirms the preceding remarks as to the falling off in production caused by the abstraction of labour to the gold-fields. In 1850 the total number of acres in cultivation was 168,820; in 1851 there were 151,846, or a decrease of 10 per cent.; in 1852, 123,983 $\frac{3}{4}$ or 18 per cent. decrease; and in 1853, 116,446 $\frac{3}{4}$ or a further decrease of 6 per cent.

Further analysis, and comparison of the year 1850 with 1853, will show the extent and nature of this decline of agriculture caused by the dearth of labour. In 1850 the acres of wheat in cultivation were 64,650: in 1853 there were only 44,123, or 31·7 per cent. decrease,—diminishing the supply of wheat by more than a quarter of a million of bushels, and about 4000 tons of hay. In 1850, 43,180 acres of barley were in cultivation; in 1853, there were 11,782, or 10·6 per cent. less. In 1850, 35,243 acres of oats: in 1853, 31,052, or 11·8 per cent. less. The yield of this year is set down at about half a million of bushels of oats, and nearly 20,000 tons of hay. The crop of peas have declined one half, from 981 acres to 405; and of beans remain nearly the same, from 95 acres to 90 $\frac{1}{4}$. In 1850 there were 6646 acres of potatoes in crop: in 1853, 5530 acres, or 16·7 per cent. less,—the yield

being 16,990 tons. Turnips show a decrease of about one half; being 3643 acres, and yielding 16,088 tons in 1853. Of carrots, 153 acres and a yield of 943 tons are returned for 1853; and of mangel wurzel, $53\frac{1}{2}$ acres of 311 tons. Of tares, 371 acres are returned as in crop, producing 1972 bushels and 209 tons of hay. In 1850 there were 39,971 acres laid down in English grasses, but the produce is not stated: in 1853 the number of acres was only 19,241, more than one half less, the produce being 11,122 tons and 6834 bushels of seed.

The annual returns of live stock for the last ten years are given in the next table, by which it appears that on 31st December, 1853, Tasmania possessed 15,455 horses, 91,803 head of cattle, 1,942,550 sheep, 1805 goats, 28,082 pigs, and 12 asses.

The average cost of provisions at Hobart Town on the 31st December of each year is next detailed; and shows a considerable progressive rise in the prices of all the common necessities of life since the discovery of the gold-fields, reaching in some instances to fully 500 per cent. It will at once be evident that this augmentation of price has been occasioned partly by the greater abundance of money in circulation in these colonies, partly by the increased demands in the markets of the neighbouring colonies to supply the means of subsistence to the crowds of adventurers flocking in and from all quarters to the gold-fields, and partly by the diminished production of our industrial population.

The average rate of wages paid to certain classes of mechanics and labourers is tabulated in the next return; and a glance at the columns of the last two years afford ample corroborative proof, if any were required, of the great disturbance of the labour market. In 1853, the wages of bricklayers, carpenters and masons have fully trebled,—

15s. a day was the current wages in the towns, the rate being a trifle less in the interior ; and the same proportion holds good with painters, plumbers, plasterers, and quarrymen, whose wages varied from 16s. to 10s. daily. Of course rations are not included. Excessive as these rates seem, they are after all not so very unreasonable when compared with the greatly enhanced cost of provisions and fuel and rent, and indeed of every article of consumption ; and it may be affirmed that a mechanic with a family was much better off with his ordinary wages in the cheap times.

The next and last return of this series details the several manufactures and trades in operation in Tasmania annually for the last ten years. The enumeration comprises sixty distinct pursuits ; and is valuable as showing the direction which colonial enterprise is taking in opening fresh channels of industry. Some remarkable fluctuations appear by a comparison of the returns, which would almost seem to contradict common experience as to the scarcity of certain classes of mechanics. For instance, in 1853 the number of blacksmiths, bricklayers, cabinet-makers, carpenters, engineers, shipwrights, shoemakers, and tailors in the colony appears to have been much greater than in 1850.

Table 38, giving a return of the diseases treated in Her Majesty's Colonial Hospitals, as it represents rather the results of a single institution than the state of health and disease of the colony at large, needs no particular notice.

Table 39 describes the number of houses in Tasmania, as ascertained by census taken in 1842, 1848, and 1851 respectively. In the first of these returns the total number was 7629, built in about equal proportions of stone or brick and wood : in 1848 they had increased to 10,187 or 33·5 per cent. ; and in March 1851 the number was 11,844 or 16·2 per

cent. increase. The population had increased respectively 18·4 per cent. for the first of these periods, and 1·8 per cent. only for the last; showing the diffusion of more house accommodation among the community in proportion to its numbers, and a consequent augmentation to the sum of social and domestic comfort. The houses uninhabited in 1842 were 333 or 4·3 per cent.; in 1848, 668 or 6·5 per cent.; and in 1851, 599 or 5 per cent. This was two months before the gold discoveries; the first effect of which was to create the belief that there would be a general desertion of houses from the selling off of house and home by people of every grade rushing to the diggings. House property, in fact, at the onset was greatly depreciated, and sold—and that with difficulty—at almost a nominal price. In a short time, however, there came an unlooked-for reaction. The streets of Hobart Town and Launceston by the end of the year began to swarm with lucky diggers and numerous visitors,—the former bent upon enjoying the fruits of their success with their families and friends, and the latter to take up their abode more or less permanently, attracted by our superior climate, and our more quiet and better protected towns. The demand for dwellings at once exceeded the supply, and soon there was not a house to be got without almost a scramble,—rents rising 300 or 400 per cent.

Table 40 is a classification of the inhabitants of Tasmania as regards their profession of religion, as ascertained by the census taken in the years 1842, 1847, and 1851 respectively; every person whose religion was not stated in the census paper being returned as belonging to the Church of England. By comparing and analyzing the returns for the three periods, we obtain the following results :—

	1842. <i>per cent.</i>	1847. <i>per cent.</i>	1851. <i>per cent.</i>
Church of England.....	73·1	69·3	65·6
„ „ Scotland.....	7·9	7·	6·5
„ „ Rome	9·4	15·4	18·1
Wesleyans	4·7	3·9	5·4
Other Denominations ...	4·	3·4	3·4
Jews	0·6	0·7	0·6

In 1842 there were returned 31 individuals as Mahomedans and Pagans, 29 in 1847, and 21 in the census of March 1851.

Table 41 shows the distinction between the married and single inhabitants of the colony at the three several dates noted, of December 1841 and 1847, and March 1851. The proportion of the married people at the first of these periods was 27·9 per cent., at the second 27·4 per cent., and at the third 28·3 per cent.

Table 42 distributing the gentlemen in the commission of the peace, 246 in number, into groups corresponding with their respective avocations, requires no comment.

Table 43 is a return of the quantity of crown land sold, and of the amounts realized by the sales, for the last ten years; and affords ample confirmatory proofs of the wealth accumulated from the gold-fields, and of its partial investment in the lands of the colony. Of the country lots 1544 acres were sold in 1850, yielding £2496: in 1851 the quantity was 2956 acres, or 91 per cent. increase; and the sum paid for it was £3106, or 24·4 per cent. increase. The average price in 1850 was 32*s.* 3¼*d.*; and in 1851, 21*s.* 4*d.* In 1852 the quantity sold was 5363 acres, or 81·5 per cent. increase, yielding £7353, or 136·3 per cent. increase; the average rate being 27*s.* 5*d.* In 1853 the quantity rose to 35,550 acres, producing £36,132, or fivefold that of the year preceding; the average price being 20*s.* 3¼*d.* per acre.—

Of the town and suburban allotments, the quantity sold in 1849 was 241 acres, producing at the average of £5 4s. 1 $\frac{1}{4}$ d. per acre £1256. In 1850 the quantity had fallen considerably below the average of preceding years. In 1851 the quantity was 529 acres, realizing at £5 19s. 1 $\frac{1}{4}$ d. per acre £3154; in 1852, 700 acres, at the highest average of £7 16s. 3 $\frac{3}{4}$ d., £5472; and in 1853 the smaller quantity of 287 acres produced, at the average price of £39 10s. 6 $\frac{1}{2}$ d. per acre, £11,344. This higher average of price may be ascribed also to the fact already referred to, of so many adventurers having returned from the gold-fields with money in their pockets, and anxious to secure for themselves and their families a settled residence in the towns, as well as to the fact of the lots offered being more favourably situated, and therefore, under ordinary circumstances, of greater value. It will also be observed that the country lots have not advanced in proportion; and much of the land exposed for sale is probably such as, under the circumstances of ordinary times, would have brought even less than the average price.

Table 44, the last of the series, is a synopsis of the meteorological observations kept at the Royal Observatory in the Queen's Domain for the last ten years. The mean pressure of the atmosphere, corrected down to the standard temperature of 32° Fahrenheit, is tabulated in the first column for each year; and the mean for the whole decennial period is 29·7614. Of far greater importance to the comfort and health, as well as to the material interests of the inhabitants, is the mean temperature, given in the next column, which ranges from a minimum of 51 in 1849 to a maximum of 54·37 in 1850; the mean of the whole ten years being 52·81. This, however, it must be borne in mind is only the mean temperature of the place where these observations were taken, in the immediate vicinity of Hobart Town; and that, before

any conclusion can with propriety be drawn as to the mean temperature of the whole Island, equally precise observations, extending over even a greater length of time, must be obtained from a great number of points ; as it is obvious that there are many conditions besides that of altitude and littoral position which more or less modify temperature in particular situations. For instance, at Port Arthur, near the level of the sea, the mean temperature for 1842 is stated, upon the authority of the late Assistant-Commissary-General Lempriere,* to have been 55·1 ; while at the Hampshire Hills, 1340 feet above the level of the sea, and more to the north, Dr. Milligan states the mean temperature for 1836 to have been only 47·69, and in 1845 only 47·49.† It is evident, therefore, that it must not be too hastily assumed that because in Hobart Town we have a temperature so mild and equable, that the same will be found to prevail generally over the colony.—The next column in the table gives the fall of rain for each year ; the minimum being in 1847, 14·46, and the maximum in 1849, 33·52 ; the mean annual fall for the ten years being 20·713, which is nearly the same as that which is given for London, (20·686) deduced from a series of forty years' observations. Here, again, we must be cautious not to receive as the average fall of rain throughout Tasmania that which is experienced in this particular locality : for Mr. Lempriere, in the Table referred to, gave for the year 1842 at Port Arthur 32·58 inches ; while Dr. Milligan gives for the five years 1835 to 1839 the following amounts respectively, viz. 55·75, 75·16, 80·59, 70·47, and 55·23 —the mean annual fall for the five years being 67·44. Again, Dr. Pugh states the fall of rain at Launceston in 1849 to have been 28·716 ; that for Hobart Town, as

* *Tasmanian Journal*, vol. ii. p. 70.

† *Ibid*, p. 71.; vol. i. p. 380.

before stated, being 33·52 for the same year. The same diversity is known to exist in all countries; for while Hobart Town agrees pretty well with London, there are some parts of Lancashire in which the fall of rain is as great as at the Hampshire Hills and the north west of Tasmania.—The notes and remarks in the last column speak for themselves, and require no comment.

IV.—*On the Characters of Astele, a New Division in the Family of Trochinæ, or Trochiform Shells; together with the Description of another Species of the same Family. By WILLIAM SWAINSON, ESQ., F.R.S., &c.*
[Read 8th March, 1854.]

THE more we become acquainted with the innumerable variations under which animal and vegetable life present themselves, the more do we discover the beauty of that portion of the plan of creation by which one form is connected to another, so that by following the chain of affinity, objects the most dissimilar are insensibly connected by intermediate forms, and these will often blend the peculiarities of each so much, that, like the seasons of the year, it becomes nearly impossible to define where one terminates and the other begins.

This gradation in the scale of nature is too well known abstractedly, even to the unscientific, to be enlarged upon in this place. It is the basis of all true science and of all natural classification; and, therefore, every fresh instance of its existence claims the greatest attention from those natu-