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OF)

WESTERN AUSTRALIA.

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PERTH: THURSDAY, JUNE 2.

[1887.

No. 3035.—C.S.O.

1408 PROCLAMATION

Western Australia, to wit. By His Excellency Sir FREDERICK NAPIER BROOME, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commanderin-Chief in and over the Territory of Western Australia and its Dependencies, &c., &c., &c.

(L. s.) F. Napier Broome, Governor.

THEREAS by divers Acts of the Imperial Legislature, it is made lawful for the Governor of Western Australia, for the time being, to fix such place within any part of the said Colony, and such time for holding every Session of the Legislative Council of the said Colony, as he may think fit; NOW THEREFORE I, SIR FREDERICK NAPIER BROOME, K.C.M.G., being Governor as aforesaid, in exercise of the powers so in me vested, do hereby announce and proclaim that a Session of the Legislative COUNCIL OF WESTERN AUSTRALIA shall commence and be holden for despatch of business on Thurs-DAY, THE SIXTEENTH DAY OF JUNE NEXT, at the hour of THREE o'clock in the afternoon, in the LEGISLATIVE COUNCIL CHAMBERS, in the CITY OF PERTH, in the said Colony; and the Members of the Legislative Council are hereby required to give their attendance at the same time and place accordingly.

Given under my hand and the Public Seal of the said Colony, at Government House, Perth, this 13th day of April, 1887.

By His Excellency's Command,

MALCOLM FRASER,

Colonial Secretary.

GOD SAVE THE QUEEN!!!

No. 3090,--C.S.O.

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor directs it to be notified, for general information, that the Public Offices will be closed on Tuesday and Wednesday, the 21st and 22nd of June proximo, being the days fixed for the celebration of Her Majesty's Jubilee at Perth and Fremantle and throughout the Colony generally.

By Command,

MALCOLM FRASER, Colonial Secretary.

No. 3091.—C.S.O.

3268

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor has been pleased to approve of the following temporary exchange of duties between the undermentioned Inspectors of Sheep, viz.:—

INSPECTOR CRAIG of the Central District, at present acting in the Irwin District, is temporarily transferred to the Champion Bay District.

INSPECTOR MILLS of the Champion Bay District, is temporarily transferred to the Central District.

INSPECTOR MORRELL of the Irwin District, at present acting in the Central District, to return to his duties in the Irwin District.

By Command,
MALCOLM FRASER,
Colonial Secretary.

No. 3092.--C.S.O.

 $4\frac{70}{86}1$

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor has been pleased to make the following acting appointment:—

Mr. Arthur Robinson to act as Lighthouse-keeper at Breaksea Island, King George's Sound, vice Mr. H. K. Toll.

By Command,

MALCOLM FRASER, Colonial Secretary. No. 3093.—C.S.O.

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor directs the publication of the following document for public informa-

By Command,

MALCOLM FRASER,

Colonial Secretary.

COLONIAL AND INDIAN EXHIBITION, LONDON, 1886.

Extracts relating to the Western Australian Court, from "Reports on the Colonial Sections of the Exhibition, issued under the Supervision of the Council of the Society of Arts, and Edited by H. Trueman Wood, M.A., Secretary to the Society."

INTRODUCTION.

In the scheme for the Colonial and Indian Exhibition, which was approved by H.R.H. the Prince of Wales, there was included a provision for the preparation of Reports on the exhibits of the various Colonies; and in a communication, dated November 24, 1884, addressed to the representatives of the Colonies in this country, His Royal Highness announced his intention of inviting duly qualified persons to prepare Reports which might serve as a permanent record of the principal contents of the Colonial portion of the Exhibition.

In May, 1886, Sir Philip Cunliffe-Owen, the Secretary to the Royal Commission, addressed a letter to the Council of the Society of Arts, asking whether the Society would undertake to superintend the preparation and issue of a series of Reports on certain of the Colonial Sections of the Exhibition. After some correspondence as to the precise scope of the Reports, and the arrangements necessary for carrying out the proposal, the Council of the Society undertook the duty, and in a letter to Sir Philip Cunliffe-Owen, dated June 29, expressed the readiness of the Society to act.

It was decided that, having regard to the wide scope of the Exhibition, it would be desirable for the most part to confine the Reports to the consideration of the raw products exhibited, or of such manufactured products as would be likely to be of commercial importance in the trade between Great Britain and the Colonies. To this rule, however, it was necessary to make certain exceptions. The important exhibits of machinery made by several of the Colonies appeared to call for special notice, and a Report on Machinery was therefore added. At the request of the High Commissioner for Canada, a Report on the Musical Instruments shown in the Exhibition was also included.

The Council, after carefully selecting the subjects which appeared most important, and classifying them in such a manner as to secure that no important industrial products should be wholly overlooked, submitted to H.R.H. THE PRINCE OF WALES a list of gentlemen whom they considered qualified to prepare the necessary Reports; and these gentlemen His Royal Highness was accordingly pleased to nominate.

The original proposal did not comprise Reports on the Indian products shown, but by the desire of the Royal Commission the Reporters on Tea, Coffee, and Tobacco were requested to include the Indian exhibits in their Reports; and in some few other cases the Reporters have dealt more or less fully with Indian products.

The Council have to express their thanks to the Reporters for the promptitude with which they undertook a very difficult task, and for the minute care and attention which they have, one and all, devoted to the subjects with which they have dealt.

The editorial work has been performed by the Secretary of the Society.

H. TRUEMAN WOOD, Secretary to the Society of Arts.

MINING INDUSTRIES.

By C. LE NEVE FOSTER, B.A., D.Sc. (London), B-ès-Sc. (Univ. France), A.R.S.M., F.G.S., one of Her Majesty's Inspectors of Mines.

Western Australia as a mining country must be judged by the future and not by the past, for up

to the present time comparatively little has been done to develop its mineral wealth.

Copper.—Blocks of rich copper ore containing cuprite and malachite were sent from a lode lately discovered in the Champion Bay district, forty miles north of Northampton; and some dressed chalcopyrite came from Geraldton. While the metal fetches such ruinously low prices people are not likely to devote so much attention to copper mining as they would have done some years ago, especially as the colonists can find so many other channels for the profitable employment of capital. However, we may fairly expect that some day the copper lodes will be turned to good account.

Gold.—The exhibit of gold was interesting, as it came from the Kimberley district, the capabilities of which are now being tested by some 3,000 miners. The new goldfield is situated in the northern part of the Colony, along the Elvire, Panton, and Ord Rivers. Derby, on King's Sound, 370 miles distant, is the nearest port. All the gold now being raised comes from alluvial diggings. The Commission displayed a collection of nuggets and coarse gold, which apparently confirm Mr. Hardman's prediction, made in his preliminary report of 1883, that payable gold exists. A large nugget, which was received after the A large nugget, which was received after the opening of the Exhibition, weighed 28 ozs. 6 dwts. Mr. Hardman speaks of a large number of auriferous quartz reefs occurring in metamorphic rocks, which probably are a continuation of the gold-bearing formation which is yielding the precious metal in the Northern Territory of the Colony of South Australia. Though the gold district is well within the tropics it is said to be not unhealthy. If gold mining can be made to pay on the Ord River, as is confidently expected by Mr. Hardman and many others, the existence of one goldfield will probably lead to the discovery of others, and the year 1886 will witness the dawn of a new era of prosperity for Western Australia.

Iron.—An ample supply of rich ironstone exists at Coates Hill, thirty-six miles from Perth, and good brown hæmatite was shown from the Vasse district; however, these deposits are not likely to be utilised just at present, when no coal is available on the spot, and when existing smelting works in other

countries can be supplied from more accessible localities.

Lead.—Galena was at one time successfully worked in the Northampton district, now connected with the coast by a railway thirty-four miles in length. Large lumps of very pure ore were shown from St. Geraldine and Badra mines, but though rich in lead they contain no silver of any value. In 1885 only 465 tons of ore were exported, and now lead mining is said to be practically at a standstill, the low price of the metal having rendered lead mining unprofitable in the Colony as it has done in Great Britain. The ore produced used to be shipped to Llanelly and there smelted.

Stone.—Granite is plentiful, and is quarried and used for building. A pedestal from York Green

The fine-grained white sandstone, known as the White Peak stone, and obtained ten miles from Geraldton, is easily worked, and will be useful not only as an ordinary building stone, but also where

ornamentation is required.

When we reflect upon the enormous area of Western Australia, equal to eight times that of Great Britain, with a population of only 35,186, of whom one-third are massed in the two principal towns of Perth and Fremantle, we are not surprised that the mineral resources of the Colony have remained undeveloped, especially in these later years when the low prices of copper and lead have rendered mining the ores of these metals wholly unprofitable except in a few special and favored localities.

There is no Geological Survey or Mining Department, but reports upon the geology of the Colony have been made by Mr. Hardman, who accompanied two exploring expeditions, and also by Mr. H. Y. L. Brown; extracts from the reports of the former will be found in the "Catalogue of the Exhibits in the Western Australian Court" (Price 2d.), and also in the useful pamphlet entitled "Notes on Western Australia," by the Hon. John Forrest, C.M.G. (Perth, 1886), which contains a map of the Colony. The Rev. C. G. Nicolay's "Notes on the Geology of Western Australia" (London, 1886), sum up what is

known concerning the mineral deposits of the Colony.

In concluding my remarks upon Australasia, I may state that much valuable information concerning the Mines Departments and Mineral produce of the various Colonies, including Tasmania, is

contained in "The Year-Book of Australia," published annually in London.

MINERALS AND GEMS.

By J. REYNOLDS GREGORY, Member of the Mineralogical Society of Great Britain, and of the Société Minéralogique de France.

The Western Australian mineral exhibits were somewhat meagre, owing to the comparatively small amount of mining enterprise, and the consequently undeveloped condition of the Colony's mineral resources at present. Quite lately, however—in fact since the opening of the Exhibition—proofs of the find of gold in the Colony came to hand from the new Kimberley goldfields, and the prospects of a rush seem imminent. These reports are corroborated by the receipt of actual alluvial gold and nuggets.

The chief exhibitors were the Fremantle Museum of Mines and Minerals, through the Rev. C. G. Nicolay, Mr. E. T. Hardman, late Government Geologist, and now of the Geological Survey of Ireland,

the Vasse Local Committee, and the Western Australian Committee.

A catalogue of the mineral, as well as other exhibits, was published by the Commission, and Mr. A. Thomson, the Assistant-Commissioner, had arranged the collections in a most satisfactory manner.

Amongst the specimens of gold recently received from the Kimberley goldfields were some good examples of alluvial gold, some in rounded nuggets, as well as a nugget of 19 oz. 1 dwt. associated with a small quantity of quartz. Some of the gold is in flattened laminæ, and appears to be only slightly rounded, indicating the fact of its partial attrition. The first specimens were brought to Derby by Messrs. Hall and Slattery, who were the earliest prospectors for gold in the Kimberley District. On the second venture the same party with others obtained the 19-oz. nugget, and in all a total of 81 ozs. Mr. Hardman found reefs of a very promising-looking quartz, having visible gold in them. After this a nugget of 28 oz. 6 dwts. was received and exhibited; all these specimens were from the Ord River, Kimberley. Mr. Hardman exhibited iron-sand with gold, being the first washings. He says also that he has found gold on the Panton, Mary, and Margaret Rivers.

Copper was represented by specimens of copper pyrites from Wheal Margaret Mine, Northampton; chessylite, malachite, and cuprite, &c., from Wheal Fortune Mine, Northampton; also cuprite and malachite from the Badra Mine.

Of lead, in the form of galena, rich specimens were exhibited from Wheal Fortune, Champion Bay, and St. Geraldine Mine, Murchison River. Fine specimens were also shown by Mr. J. H. Gale, of Geraldton, from Badra Mine. Examples also came from Wheal Margaret Mine, Northampton; and large and well-crystallised specimens of galena from Wheal Fortune, Northampton, Champion Bay.

Iron seems abundant in Western Australia, and large blocks of limonite were exhibited by the Vasse Local Committee. These appear to be of the earthy bog-like variety, and come from the Vasse District. The York Local Committee exhibited blocks of hæmatite from Coate's Hill, York Road. Specimens of magnetite, strongly magnetic, from the Fraser Range, were shown by the Albany Local Committee. Iron pyrites was shown from Wheal Margaret Mine, Northampton, and a specimen of meteoric iron, one of four masses found in 1883 at Yundagin, ninety miles east of York.

Zinc-blende was shown from Wheal Margaret Mine, Northampton.

The Albany Local Committee exhibited specimens of lignite of excellent quality from near

Augusta, Albany.

Of non-metallic minerals there were specimens of gypsum, chalcedony, agate, rock crystal, actinolite, jasper, and stalactites, forwarded by the Rev. C. G. Nicolay, who also sent a characteristic variety of the rocks of Western Australia, which were named and arranged by Mr. E. T. Hardman. These specimens belonged to the Museum of Mines and Minerals of Fremantle. A series of rocks

collected in Kimberley, by Mr. H. F. Johnston, was also shown.

Amongst the rock specimens displayed were examples of basalt, dolerite, varieties of lavas, volcanic ash, diorite, and other igneous and volcanic specimens; also good examples of granite, syenite, graphic granite, porphyritic granite, gneiss, &c., together with examples of chlorite-, mica-, and hornblende schists, quartzite and sedimentary rocks of the Palæozoic age; also sandstones, limestones, and grits. The Rev. C. G. Nicolay also sent fossils from the Geological Museum, Fremantle, including a cast of the spine of *Edestes Davisii* (*H. Woodward*) from the carboniferous of Gascoyne River, figured and described in Geological Magazine, 1886, p. 1; also some Tertiary fossils and specimens of a crustacean, the *Thelassina Emerii*, from Cambridge Gulf, Kimberley.

MEAT AND DAIRY PRODUCTS.

By CLARE SEWELL READ.

WESTERN AUSTRALIA.—The hams from Western Australia did not keep well, and its only other meat product was a cask of salt beef from Mr. John Liddelow of Perth. This meat was a portion of a grand bullock which took the prize at the Western Australian Agricultural Show last year, and weighed dead 1656 lbs. It was well-fatted prime beef, but as it had been just twelve months in the cask before it was cooked, it was too highly salted for home consumption.

GRAIN.

By W. PROCTOR BAKER.

Western Australia has very little land under cultivation, the quantity being only about 80,000 acres. Agriculture is confined entirely to the south of the 28th parallel of latitude. To judge from the exhibits, the soil and climate are suitable for the production of wheat, as the samples are of excellent quality and of the same general type as those of the other Australian Colonies, and have the characteristic bright clear Australian complexion. The average yield per acre does not exceed that of Queensland. The chief producing district appears to be close to Perth, but as there is stated to be abundance of land in the central districts of the Colony suited to the growth of cereals, there seems no reason to doubt that a steady, though perhaps slow, progress may be made in the development of the industry; but at the same time, it is clear that it is not a calling that will be attractive to capitalists, as the returns to be gained for investments in other directions within the Colony are greater, and the settlement of the country will more probably be accomplished by a peasant population. Oats were shown of several varieties; the white sorts are compact, good corn of good weight; but the brown oats are very thin, long-tailed, and by no means attractive specimens of this grain.

The Greenough district, north of Perth, appears to be the oat district. Maize is grown in the

Colony, but only to the extent of less than 100 acres.

FRUITS.

By D. Morris, M.A., F.L.S.

The representation of fruits in the Western Australian Court comprised one magnificent pear weighing 3 lbs. and 3 ozs., some dried apricots and figs, dried peaches, several boxes of raisins, and a selection of preserves of Cape gooseberry, melons and gooseberry, and melon and limes.

There were exhibits of candied fruits, and one lot of preserved olives.

There were exhibits of candied fruits, and one lot of preserved olives.

Judging from the specimens here shown, it is evident that both raisins and currants can be grown in Western Australia, equal to any in the English market. The stalk, or dessert raisins, prepared by C. W. Ferguson and C. C. Fauntleroy, were in excellent condition, and deserve special mention. Practically an undeveloped country, Western Australia cannot be expected to show advance in cultural operations equal to her sister-colonies. What she has done already, is good earnest of what she is capable of doing; and it is evident that choice and delicious fruits are to be numbered amongst the stores of her prosperous future.

WINES, SPIRITS, BEER, AND OTHER FERMENTED LIQUORS.

By RICHARD BANNISTER, F.I.C., F.C.S.

The exhibits of wine from Western Australia, Queensland, and New Zealand were few in number. The climate of Queensland is in many parts sub-tropical, and consequently too hot for the successful growth of the vine. Western Australia, being very thinly populated, cannot be expected to make such a show in wine production as her three comparatively wealthy sisters, but some of the wines exhibited are pleasant beverages, and would no doubt, if produced in sufficient quantity at a reasonable price, command a fair sale at the place of production. New Zealand, from her exhibits, appears to adapt herself with success to other pursuits than viticulture, and therefore follows those occupations for which the climate is more particulary fitted.

The malt liquor exhibited by the Australian Colonies and New Zealand possessed a somewhat marked aromatic smell and flavor, but as the hops of native growth exhibited possessed also the same character, it was easy to trace the origin of the peculiarity in question.

Wines.

1. Easton, W., Windsor Vineyard, Swan River, near Fremantle—about 14 acres; alluvial sand, in deep limestone basin. Red Wine; vintage, 1881; made from Red Madeira; planted in 1864. Hock; vintage, 1880; made from grapes locally known as "White Hambro;" planted in 1864. Burgundy; vintage, 1882; made from grapes locally known as "Miller's Burgundy;" planted in 1864; vines principally tied to framework.

2. Jecks, Thomas, Guildford.—Houghton white wine, 1883; made from "Verdeilho" grapes, by C. W. Ferguson, Houghton vineyard; 14 acres; red sandy loam; standard vines. Caversham red wine, 1882; made from "Muscatel" and "Shaw's Green," by Mrs. DeBurgh, Caversham vineyard; stiff clay; standard vines. Fontainbleau, 1884; made from "Fontainbleau" grapes, by C. W. Ferguson, Houghton vineyards (as above).

3. Waylen, A. R., M.D., Garden Hill, Guildford—about 9 acres; heavy loam; north-east aspect; vines trained to low espaliers. Cost of cultivation per acre, £10. "Reisling;" dry, light; vintage, 1883; made from Sweetwater and Reisling. Garden Hill white wine; vintage, 1884; made from sweetwater, Reisling, and Pedro Ximenes. Fontainbleau; red wine; full-bodied; vintage, 1881; made from a species of Burgundy; planted in 1859. Burgundy; red wine; full-bodied, dry; vintage, 1879; made from "Miller's Burgundy"; planted in 1861.

4. Herbert, J. A., Rockingham Vineyard, Fremantle.—2½ acres; sandy soil; northerly aspect; trellis vines. White wine; made from mixed grapes; vintage, 1883.

5. Fauntleroy, C. C., Redeliffe Vineyard, Guildford—2½ acres; fine sand on yellow clay. Cost of cultivation per acre, £5 los. "Sweetwater:" full-bodied, dry; made from Sweetwater; planted in 1835; bush vines.

6. Hassell, A. & A., Kendennup—1 acre; soil, clay. Cost of cultivation per acre, £10. Reisling; vintage, 1878.

1878. CLINCH, J., Berkshire Valley-1 acre; soil, light loam. Cost of cultivation per acre, £30. Wine; vintage,

Wine; vintage, 1878.

Spirits, &c.

Jose, W., Geraldton.—Cordials (an assortment of): chiefly Fruit Syrups.

Malt Liouors.

FERGUSON & MUMME, Messrs., Perth.—Ale and Porter. Jones & Hall, Messrs., Stanley Brewery, Perth.—Ale. HARWOOD & SMITH, Lion Brewery, Perth.—Ale.

Miscellaneous.

CLINCH, J., Berkshire Valley.—White Wine Vinegar, Mulberry Vinegar.

DRUGS, CHEMICAL AND PHARMACEUTICAL PRODUCTS.

By Dr. B. H. PAUL, F.C.S.

A drug exhibited in the Western Australian Court under the name of sarsaparilla was described as growing plentifully in the swamps adjacent to the coast. It is quite different from the ordinary drug, but is used locally to prepare a docoction like that made from the sarsaparilla of commerce. sarsaparilla was also shown in the New South Wales Court.

Beeswax was exhibited in several of the Australian Courts, that of New South Wales being almost

colourless, and the samples from Western Australia very good.

Good honey was also exhibited from New South Wales, Queensland, New Zealand, and Western Australia, Bees were imported into the latter Colony within the last twenty years, and they have multiplied to such an extent that they are now to be found over a very large area of forest land and scrub as far as 150 miles eastward from Perth. Owing to the abundance of flowering trees and shrubs rich in honey, the bees are never in want of food at any time of the year, so that there is every probability the collection of wild honey and wax will become a lucrative pursuit.

Olive oil was exhibited in the New South Wales, South Australian, Victoria and Western Australian. Several of the samples were of very excellent quality; but some retained the harsh astringent

taste of the olive in a marked degree, probably in consequence of some defect in the manufacture.

In the Western Australian Court the exhibits of Eucalyptus and Xanthorrhea gums were numerous, and there were also some samples of gum resembling gum arabic; but they were not of very good quality. Sandal-wood, the produce of *Fusanus spicatus*, is obtained abundantly in this Colony. A kind of sarsaparilla, which grows plentifully near the coast in swampy ground, was shown. It is used in the same way as ordinary sarsaparilla.

OILS AND FATS.

By LEOPOLD FIELD, F.R.S.E., F.C.S.

Emu oil, shown by the Gascoyne Commission, Western Australia, is probably of more interest to the acist than the soap-maker. The smell was very fishy, with an added something peculiar to itself. pharmacist than the soap-maker. The smell was very fishy, with an added something peculiar to itself. The dark-yellow, limpid oil saponifies readily but the product has an intolerably nauseous odour. As the amount produced cannot be large enough to satisfy an extensive commercial demand, it is perhaps not worth while discussing emu oil further in this place.

Western Australia, as represented by the Vasse Local Committee, did not exhibit to the extent that its extensive fisheries would lead one to expect. Only whale oil and shark oil were catalogued, and of these only whale oil was exhibited. This, in compensation as it were, was of a quality unlooked for in such an oil: indeed, the color and smell nearly resembled similar characteristics of neat's-foot oil, from

which, but for a very slight fishy bouquet, it would, to smell and sight, be indistinguishable. The specific gravity, however (929), is that of a whale oil (neat's-foot, 916); its viscosity at a low temperature also tends to distinguish it, though the saponification equivalents are nearly identical. This is an excellent example of the perfection to which careful selection and refining can bring the most unsavoury materials.

Olive oil.—In the present era of adulteration, when most of the olive oil known to English consumers is a mixture of ground-nut and cotton-seed, with, often, a goodly percentage of white paraffin oils, a genuine sample from the fruit is very welcome. Australia showed some magnificent oils; but all the exhibits were so highly refined, and the price so heavy, as to exclude them from the manufacturers' schedule (2s. per fb. quoted). Mrs. Onslow, Menangle, New South Wales; the Vicar General Gibney, Western Australia; and especially Sir Samuel Davenport, Adelaide, South Australia, exhibited oil equal to the finest Lucca brands; Sir S. Davenport's exhibit was as magnificent in its way, though not so comprehensive, as Price's Candle Company's in the West African Court.

GUMS, RESINS, AND ANALOGOUS SUBSTANCES.

By Thomas Bolas, F.C.S.

The gums contributed to the Exhibition by this Colony were—as a rule—generally similar in general character to those already alluded to; but one exceptional specimen was a sweet soft gum which comes from the eastward plains, and is called by the natives Karri. It is supposed to be yielded by a species of Casuarina, and is much sought after by the natives as an article of food. Some portions of the sample exhibited consist mainly of arabin, while other portions contain so much of a deliquescent sugar as to be of the consistency of the printer's roller composition (glue and treacle); indeed the softer portions of the gum closely resemble the roller composition in taste, smell, and general physical characters, excepting that the gum is lighter in colour, and does not liquefy on the application of heat.

The so-called "Black Boy Gum" is a Xanthorhea resin of a similar character to the grass-tree

gum shown in the other Australian departments, but the samples average a little darker, although none are so dark as the darkest specimen exhibited by W. H. Cook, of New South Wales. These resins should, one would think, have a very extensive use for staining wood of a mahogany colour, and in, at the same time, varnishing it. The colour produced is not nearly so red as that obtained by "dragon's blood," and probably would prove more acceptable in many cases. This resin appears, if one may judge from the samples, to vary in purity very much, a lump from one sample—No. 132a—a sample exhibited by the Perth Local Committee, having yielded as much as 90 per cent. of deep reddish, orange shellac-like resin; while a lump taken from sample 133 contained more than half its weight of ligneous matter and a trifle under 40 per cent. of resinous matter.

One may regard the resinous element of the Xanthorrhea gums of the constituent more immedaitely to be utilised industrially, as one would suppose the European markets to be open to receive a very large amount of this material, if sold in such a form that the average consumer could use it readily. The crude gum does not look very attractive to the purchaser in the European market, as it contains a large—and what is worse, a very variable—percentage of matter insoluble in alcohol; and its purchase would involve an assay of each consignment, together with the attendant inconveniences, and the provided that the possibility of misunderstanding. Apart from this, it must be remembered that manufacturers—especially small manufacturers—have a rooted, and not altogether unreasonable, objection to use a variable article, as it disturbs the routine of their operations. All these considerations—to say nothing of the saving in freight—point strongly to the desirability of roughly purifying the resin before sending it to Europe. A sufficient purification is a very simple matter, and could be well carried out on the spot where the material is found, thus saving expense in land as well as ocean transit. It would suffice to soften the crude gum by heat, and to squeeze the softened resin through cloth or through a fine iron wire netting, such as is used for straining gutta-percha. The heat of boiling water is sufficient for the purpose. The separated resin could well be put on the market as an approximately constant article—varying mainly as regards colour—and one which numberless small producers could use in their trades. The water in which the crude gum is boiled dissolves out more or less colouring matter, and also astringent or tanning substances, and possibly, if the purification were undertaken on a larger scale, these might be turned to account.

Stenhouse, a good many years ago (Ann. Chem. Pharm. lvii. 84), investigated the resin of the Xanthorrhea, and found that when dissolved in Potash or decomposed by hydrochloric acid, there is a deposition of benzoic acid and cinnamic acid, and he found that when treated with nitric acid it yields abundance of picric acid, and it is quite possible that in the case of this material being abundantly imported it may become useful in other ways than as a mere resin. It would be an interesting matter to

more thoroughly investigate the nature of the Xanthorrhea resin.

A gum from the *Eucalyptus rostrata*, the "flooded gum" of the interior, is shown by the Vasse Local Committee. This is used as a tanning material, and is said to be very abundant, but the sample appears to have been rather carelessly collected; it contains an altogether unreasonable quantity of bark

and other foreign matters.

A sample given to me as 140, and stated to be from the red gum-tree (Eucalyptus calophylla), is apparently a rather good sample of Xanthorrhea resin, a mistake having probably been made in marking. The real red gums are marked 140a, Albany Local Committee, and 139, Dunn Bros., and are mentioned under these numbers in the Western Australian Catalogue; they are kino-like astringents, but contain

Manna Gum, No. 129, in the Catalogue, is a brown acacia gum of fair quality for an Australian acacia gum, and a better quality is "No. 132 sample of gum-arabic," bearing the name of C. E. Dempster, of Newcastle. There is also Manna gum, No. 131, of fair quality, exhibited by the Perth Local Committee.

Cabbage-Tree Gum, No. 131, is a tragacanth-like gum, which swells in water, but does not dissolve. It is catalogued as "not soluble in water, but probably useful in making an oil or spirit varnish," but not being a resinous material, it is useless for such purposes. It might, perhaps, be made to serve as a stiffening material for the calico printer.

WOOLS.

By F. H. BOWMAN, D. Sc., F.R.S. Edin., F.L.S., F.C.S., F.R.M.S., President of the Society of Dyers and Colourists.

The wool in this section of the Exhibition was exhibited in two upright cases in the two corners of one of the Courts. The fleeces were each in separate compartments for each exhibitor, and were marked with the name and address, but few particulars were given. The samples were mostly from the South-West districts around Perth, almost all of pure or cross-bred merino wool; and one exhibitor also showed mohair, which indicates the introduction of the Angora goat into this section of Australia.

J. H. Monger (No. 187) showed samples of fine combing merino. This was a really first-class

wool.

Norris Taylor (No. 189) exhibited good specimens of cross-bred merino. James Fleay (No. 190). Samples of combing merino. Good useful wool.

W. Marwick (No. 191) showed good samples of cross-bred merino.

J. and H. Sewell (Nos. 192 and 193) exhibited specimens of cross-bred merino, washed and unwashed. This was fine, free-grown wool.

C. Lloyd (No. 194) and B. D. Clarkson (No. 194A) exhibited cross-bred merino. Both these

wools were good of their class, specially the latter.

A. Dempster (No. 195) and C. E. Dempster (No. 196). Both showed specimens of cross-bred merino: the former was strong, useful wool; and the latter, also good.

G. and W. Lefroy (No. 197) and P. Garrity and Sons (No. 198) exhibited samples of cross-bred

merino. The wool in both cases was not very fine, but strong and useful.

A. and A. Hassell (Nos. 199 to 200A) showed samples of cross-bred merino and lambs' wool. This wool was of a good type, but not very fine.

J. Clinch (Nos. 201 to 203) exhibited samples of good, useful combing merino; also Angora. This mohair was only of a coarse type, and had not the lustre which characterises the best fleeces. qualities.

W. T. Loton (No. 203A) showed some heavy fleeces, but the wool was not of very fine quality.

Lacy Bros. (No. 203B) exhibited samples of pure-bred merino ram and ewe's wool. These wools were very good indeed, and possessed all the qualities of first-class merino. The quality of many of these wools was the best exhibited in this section. They were grown in the Murchison river district.

The wools of this section, with the exception of some of the specimens in the latter exhibit, have

The wools of this section, with the exception of some of the specimens in the latter exhibit, have not the high character of those shown by the older Colonies; but there is every indication that both climate and herbage are fitted for the highest class of sheep-farming, and the character of some of the wools exhibited by Lacy Bros. approach closely in quality to those from South Wales and South Australia, but lack the peculiar brightness of the Victorian wool. Judging from these samples, the wools of this Colony will probably in time have a distinctive character of their own, and command a high value in the market. In 1885 there were 1,702,719 sheep in the Colony, and about 5,970,000 lbs. of wool was exported.

SILK.

By T. WARDLE, F.C.S.

There were no exhibits of cocoons in the Court of this Colony.

But the experiment of silk-production has been tried in Western Australia so long ago as in 1878, when cocoons were sent over which had been produced by silkworms hatched, reared and fed on mulberrytrees grown in and about Perth. They were reeled in Lyons, and the raw silk produced from them was manufactured into beautiful satin, by Messrs. J. & T. Brocklehurst & Sons of Macclesfield, having been

first dyed an excellent gold color by the late eminent dyer, Mr. J. Barnet of Macclesfield.

The results of this experiment formed the only example of silk in this Court, and were exhibited in the shape of banner curtains made of the satin I have just described, and hung over the entrances

of the New South Wales and Queensland Courts.

The quality of this satin left nothing to be desired; it was quite equal to that manufactured in Europe from the silk of any silk-producing country, and pointed to a good future when the population of

this great part of Australia is sufficiently numerous to turn its attention to sericiculture.

I gather from the preface to the catalogue of exhibits in the West Australian Court, that the length of the Colony is 1,280 miles, and its breadth, from east to west, 800 miles, a territory of about a million square miles, eleven times the extent of Great Britain, and forming one-third of the Continent of Australia, but possessing a population of only 40,000, leaving beyond the sea-board enormous undeveloped regions.

I would strongly urge the continued search for, and collection of larvæ, moths, and cocoons of all indigenous wild species of silk-producers which can be found in this Colony, as it is impossible to attach

too much importance to the extension of sericicultural knowledge in this direction.

MISCELLANEOUS FIBRES.

By C. F. Cross.

There were no exhibits in the sections of New South Wales and West Australia to which

particular attention can be directed.

In the former I found specimens of bast from various species of Sterculia, but these were of no especial interest. In Western Australia there was a specimen of the indigenous Spinifex, with a rope of native manufacture. Mr. George Whitfield exhibited two bundles of fibrous plants (identified by Mr. Jackson, of Kew, as a species of Daphne), with the view of their being investigated by a paper-maker. The low yield of Cellulose (24.6 per cent.), however, together with their very imperfect preparation, precluded any useful result.

LEATHER, LEATHER GOODS, FURS, HIDES, AND TANNING MATERIALS.

By James Powell.

Leather.

VICTORIAN TANNERY, Geraldton. No. 47. One Tanned Bull Side.—Red color, poor tannage, soft, fairly flayed, roughly finished. One Waxed Kip Side.—Poor tannage, exceedingly coarse on flesh, too heavily sized. One Brown Harness Side, one Black Harness Side.—Poor tannage, wanting in firmness, loose leather, not well curried, very coarse grain. No. 56. Black side too heavily sized.

No. 56. C. S. Monger, Newcastle. Tanned and Curried Kang color on flesh, not well trimmed, wanting in fineness on grain and finish. Tanned and Curried Kangaroos.—Poor tannage, not well curried, fair

Boots and Shoes.

Western Australia had an exhibit of men's hand-made watertights, sent by the York Local Committee. They were strong but roughly made, with nugget nails. There was also a case of men's and women's boots and shoes; the uppers looked as if they had been made up here and soled with Australian leather in the Colony.

Saddlery and Harness.

Western Australia.—A set of strongly-made cart harness, well sewn, such as would be made in an English country town.

TIMBER (No. I.)

By Thomas Laslett, Timber Inspector and Surveyor of Forests to the Admiralty (Retired), Late Lecturer on Timber at the Royal School of Naval Architecture, South Kensington, and at the Royal School of Military Engineering, Brompton.

The Timber exhibits in this Court were by the Commission of Western Australia, Western Australian Commission, Western Australian Manufacturing Company, Perth; Albany Local Committee, Bunbury Local Committee, Carnaryon Local Committee, Perth Local Committee, Vasse Local Committee, York Local Committee; Clarkson, B. D., Newcastle; Davies, M. C., Augusta, Dunne Bros., Hassell, A. and A., Kendenup; Keane and White, McKail, J., Albany; Muir, A., Albany; Neil McNeil and Company, Jarrahdale; Sheratt, T., Albany.

Thus there were eighteen contributors, but a smaller variety of timber exhibits than either of the other Australian Colonies. The chief and most important of the exhibits were the Jarrah, Karri, and Tuart timbers, of which the two former are plentiful, the other moderately so. These woods are available for export to almost any extent, and likely to be drawn upon largely for constructive purposes, from their known strength and durability. Good furniture woods are scarce, and there is no fir or pine, for the lighter works in carpentry, found in the exhibits from the Colony. The report covers the whole of the exhibits.

This is the Raspberry Jam tree of the Colony, and is of small Acacia acuminata, Benth. dimensions, yielding a hard, fragrant, scented wood, suitable for cabinet-making, though, so far as can be seen, it is only used for fencing posts on account of its durability. A slab cut eighteen years agoquite sound now—and a small log served to represent this tree.

Agonis. Boat crooks from the Peppermint trees were shown of a species of this genus, which

appeared suitable for the purpose.

Banksia verticillata. The trees of this are of moderate dimensions, and yield a soft mottled wood, tough, elastic, and easy to work. It is suitable for joiners and cabinetmakers for furniture purposes; also for boat-building. Two sections and two slabs exhibited represented this wood.

Casuarina, the She Oak and Swamp Oak trees. They are of medium size and yield timber of a They are considered equal, if not superior, to reddish color, moderately hard, tough, and elastic.

Hickory for tool-handles and wheelwrights' work.

Hickory for tool-handles and wheelwrights' work.

Eucalyptus. Of this eight species were exhibited, viz.:—(1) E. calophylla, R. Br.; (2) E. cornuta, Lab.; (3) E. diversicolor, F. Muell.; (4) E. gomphocephala, DC.; (5) E. longirostris, F. Muell.; (6) E. loxophleba, Benth.; (7) E. marginata, Sm.; (8) E. redunca, Schau. None of these were found in the exhibits of the other Australian Colonies. Nos. 1, 2, 5, and 6, respectively known as Red Gum, Yate, Morrel, and York Gum, each attain moderate size, yielding timber of a hard, tough, strong, and heavy character, suitable for engineering and architectural works. (8) The Wandoo is less tall than those previously named, and has its stem commonly in twisted form; the wood is pale in color, very hard and durable, is suitable for mill cogs, wheelwrights' work, and rough carpentry; but on account of its peculiar growth, it probably would not be suitable for engineering purposes. (3) Karri is one of the Deculiar growth, it probably would not be suitable for engineering purposes. (3) Karri is one of the E. amygdalina, Lab., of South-East Australia, in the Australian Colonies. It is scarcely rivalled by the Pseudotsuga Douglasii, Carr., of British Columbia, or the Sequoia gigantea, Decne., of California. These

magnificent Karri trees grow perfectly straight and cylindrical, frequently free from branches to 80 feet, and yield timber of a reddish color, clean and straight in grain, hard and heavy, scarcely free from gum veins, and liable to split in seasoning. Two specimen logs, each about 51 feet in length, free from knots, and straight in grain, stood upright, one on either side of the North-east entrance to the Court; while close by a stack or pile of square or converted timber was lying tier upon tier horizontally, some portion of these being of scantlings suitable for railway sleepers; these are doubtless of the best quality the tree yield, and treated as fair samples, may be regarded as suitable for engineering purposes, bridges, piles, architecture, and by selection for ship-building and cabinet-making. Karri has the reputation of being durable, and is lighter in weight than Tuart or Jarrah. (4) Tuart. This is a tree of large dimensions, but it does not grow to nearly the same height as the Karri; it yields timber of a straw color, curled or twisted in the grain, is hard, strong and durable, heavier than most trees of *Eucalyptus* class, and being difficult to cleave, does not split as many others in seasoning; further it appears to be without gumvein defects. Owing to the solidity of its character, and general good properties, it is invaluable for all kinds of engineering and architectural works, for cabinet-making and turnery. The plank exhibited, cut eight years, and the slab Tuart are in good condition. (7) Jarrah. This tree is spread over a wide range; it is stated to occupy as much as 14,000 square miles of the country, or nearly equal to one-half of the forests It attains large dimensions, yields timber of a reddish colour, in which occasionally gum veins are found: is hard, heavy, moderately strong, and durable, as the exhibits and the information obtainable show very satisfactorily. A whole trophy of square or converted timber of this class stood piled horizontally tier upon tier, in the open near the north-east door of the Court; also a log set vertically in the round state, while another log in the round, stated to measure 116 cubic feet, lay just within the door, having part of its side dressed or flattened and polished; one, the exposed end, not showing the heart-shake, if any, also being polished to show how from the rough and natural appearance of this timber it can be improved upon if put into the hands of the cabinet-maker. Much has been said at times in favour of the Jarrah, but all who have a knowledge of its properties admit its liability to split seriously in seasoning, unless extraordinary precautions are taken to have the trees cut from hilly localities, and in the season when the sap is least active.

It is peculiar to the Jarrah that while it continues to grow and thrive, and long before it matures, decay sets in at the heart or pith of the trees, wastage commences, and, from the root for some distance up the stem, the tree becomes hollow. Those working the forests do not regard this as of much importance; they advise rather that no square log to the full size of the tree should be attempted, but instead thereof to take the largest size obtainable, in flitches clear of this defect. Having regard to this, I consider that where the trade conditions as to selection and felling are strictly observed, this timber is suitable for piles, bridges, railway sleepers, architectural works, ship-building, and general purposes.

is said to be impervious to the teredo and termites, and to be of a non-inflammable character.

The slab, the small pile, and the pieces of Jarrah fencing post, are satisfactory evidences of the durability of this timber.

Fusanus spicatus, R. Br. The selection of Sandalwood exhibits were pieces taken from trees of

small dimensions; they yield a fragrant wood, much in demand for trade with China.

Melaleuca sp., Tea tree, or Paper-bark tree, is of moderate dimensions, rising in some instances to 100 feet or more; it flourishes best on river banks, and yields a hard useful timber that resists the white ants. It would be suitable for building purposes.

TIMBER (No. II.)

By Allen Ransome.

This report is the outcome of a series of practical tests of Colonial timbers made at the works of my firm. The great variety of fine woods exhibited at the various sections of the Exhibition suggested to me the idea that many of them might with great advantage be introduced into this country in conjunction with, or in place of, the comparatively few foreign woods which have too long enjoyed a monopoly of the English market.

As a first step in this direction, I offered to the Executive of the Royal Commission to practically test any samples of woods which they might like to submit for the purpose, by working them up, by

machinery, into the various articles for which they appeared best suited.

This offer was conveyed to the Agents General of the various Colonies, who showed their appreciation of the scheme by at once placing at my disposal samples of such woods as they considered

best suited for the English market; and some weeks were spent in thoroughly testing them.

The operations carried on embraced felling and cross-cutting large trees by steam-power; sawing out, adzing, and boring railway sleepers; the conversion of wood in various ways by vertical, circular, and band saws; the manufacture of doors, straight and circular mouldings, flooring, match-boarding, panels, and framing; also the turning of spokes, axe, pick and hammer handles, and other similar articles; as well as the manufacture of casks for holding liquids.

In the following report I give the results of the trials, and my opinion as to the purposes for which each description of wood can be most advantageously employed; but I think it well to state that many valuable timbers which were sent for trial have been passed over without remark, on account of

the samples being too small for practical experiments.

Of those timbers which are already well known I make no mention, the object being to consider only woods which are practically unknown in England, and so to help in opening a market for them. It is true that this report includes certain woods which have already been imported into England; because, although introduced to a small extent, they have not yet attained that popularity to which I think their

special qualities should entitle them.

A serious difficulty in testing the samples was found in consequence of the majority of timbers submitted for trial being very wet; this refers more especially to the Eucalypti of Australia, which appear to have been felled hurriedly for the Exhibition, regardless of the season of the year, and shipped The same applies, in a somewhat less degree, to the hard woods of other countries. I deem it necessary to call especial attention to this, as it is certain that, however good a timber may be, it will never find its way into the English market unless delivered in a thoroughly seasoned condition. To ensure this I should therefore recommend those who are interested in establishing a trade with the home country to saw up their timber into merchantable sections and season it thoroughly before exporting it.

With a view to forming some idea as to how the different timbers would be affected by seasoning, pieces of the various woods included in the schedules on pages 474 and 475 were planed to the uniform size of 18 inches by $4\frac{5}{8}$ inches by $1\frac{1}{2}$ inches; and, after being carefully weighed, were submitted to the Cool Air Drying Process for 144 hours, with the results given below. It should, however, be mentioned that this experiment can hardly be regarded as complete, in consequence of some of the samples being very much more seasoned than others when placed in the drying chamber.

For seasoning the woods the Cool Air Drying Process was selected, as being the most like natural seasoning of any of the artificial means at present known; and it is noticeable that though the test was very severe (the woods in some cases losing as much as 22 per cent. in weight) they have, with few

exceptions, stood most excellently.

Western Australia.

Karri (Eucalyptus diversicolor). Like all the Eucalypti, this is a hard timber. In colour, it is of a light red tint. A log 3 feet in diameter, planted in the yard at Stanley Works to represent a growing tree, was cut down by the Steam Tree Feller; and another log of the same size was cross-cut, as it lay on the ground, by a similar machine. In each case the operation was completed in about three minutes. The wood was operated on in the following ways:—The rail-seatings were adzed on a sleeper and the spike-holes bored, giving satisfactory results. A plank passed through the vertical frame, produced clean sawn boards; spokes and hammer-handles were also turned out satisfactorily. The tree, which is abundant in the Colony, attains colossal proportions; stems having been measured to a height of 300 feet without a branch, and with a girth of 60 feet at the base. This timber has been quite recently imported

into London, and can be purchased at from £7 to £8 a load at the Docks.

Jarrah (Eucalyptus marginata). This, the most plentiful of Western Australian timbers, is beautifully marked, and somewhat resembles mahogany in colour. Railway sleepers, joinery, casks, spokes, and hammer-handles were made from it. The planed and moulded specimens, unlike the Karri, which does not finish well, left the machines with a remarkably fine surface. The wood is largely used

in Western Australia for railway sleepers, furniture, and joinery, and is especially adapted for piles, as it resists the teredo. The best jarrah is found on the hill ranges about twenty miles from the sea-coast, and being easily accessible, can be delivered in London for £7 a load.

Raspberry Jam Wood (Acacia accuminata). This is a dark, reddish-brown wood, close-grained, hard, and with a fragrant scent, from which it derives its name. The tree, which is small, is abundant throughout extra tropic Western Australia and should find a ready sole in this country for consequents. throughout extra tropic Western Australia, and should find a ready sale in this country for ornamental wood-work.

York Gum (Eucalyptus loxophleba). This is a light-pink wood, close-grained, hard, and heavy. The samples submitted, being very small, only spokes could be made from them; for which purpose the

wood seems eminently adapted.

Tuart (Eucalyptus gomphocephala). This wood is of a light-brown color, heavy, durable and tough. From the sample sent, some felloes were shaped and some spokes turned; the finish from both machines being all that could be desired. The timber is used in the Colony for railway wagons,

wheelwrights' work, and ship-building.

Wandoo (Eucalyptus redunca). This wood is very similar to the last described; and is used for the same purposes. Felloes were shaped, and spokes turned from it, the finish being, if anything,

superior to that of Tuart.

List of Woods dried by the Cool-air Process.

Name of Wood. Colony.		Weight when put in.	l v	eight hen en out.	Condition when sent.	Remarks,	Shrinkage.	
Karri Jarrah Tuart	Western Australia {	lbs. oz. 4 6 4 2 5 7	4 3	2	Half dry Wet Very wet	Somewhat shaken and twisted Not shaken; slightly twisted Not shaken; slightly twisted	Width. $\frac{\frac{1}{16}''}{\frac{3}{32}''}$ $\frac{\frac{3}{32}''}{\frac{1}{32}''}$ full	Thickness. $\frac{\frac{1}{3}}{\frac{1}{3}}$ bare $\frac{\frac{1}{3}}{\frac{1}{3}}$

No. 3094.—C.S.O.

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor has been pleased to make the following appointment, viz.:-

Miss Catherine McKay to be Postmistress at North Fremantle, vice Miss Phœbe McKay, resigned.

By Command,

MALCOLM FRASER, Colonial Secretary. No. 3095.—C.S.O.

TENDER ACCEPTED FOR 1887.

Colonial Secretary's Office, Perth, 30th May, 1887.

For the Supply of Bedding and the Removal of Manure.

Lakes Police Station.—Symmonds, John, for the manure.

> By Command, MALCOLM FRASER, Colonial Secretary.

TIME TABLE

Of Foreign and Intercolonial Mails for despatch during the Month of JUNE, 1887.

MAILS F	OR THE	AUST	RALIAN	COLON	IES, E	TG.	MAILS	FOR	EUROPE	INDIA	, CHIN	A, ETG.
Per Ro	Per Royal Mail Van.			Pers.s. "Rob Roy."			Per s.s. "Rob Roy."					
CLOSE AT	DAY.	DATE.	HOUR.	DAY.	DATE.	HOUR.	DAY.	DATE.	HOUR.	DAY.	DATE.	HOUR.
Perth Fremantle Guildford York Northam Newcastle Canuing Pinjarra Bunbury Vasse Victoria Plains Gingin Dongarra Greenough Champion Bay Northampton Baunister William River Arthur River Kojonup Mt. Barker	Friday Friday Thur. Thur. Thur. Tues. Mon. Mon. Tues. Wed. Sunday Sat. Sat. Sat. Sunday		11 a.m. 8 45 a.m. 8 55 a.m. 8 830 a.m. 8 a.m. 7 45 a.m. 1 p.m. 6 a.m. 10 a.m. 10 a.m. 10 a.m.	Friday Thur Thur.	June 21 June 20 June 20 June 21 June 22 June 19 June 18 June 18 June 17	11 a.m. 8·45 a.m. 8·45 a.m. 8·55 a.m. 8·50 a.m. 8·50 a.m. 8·50 a.m. 1 p.m. 6·a.m. 10 a.m. 10 a	Friday	June 3	noon 2·30 p.m. 10·40 a.m. 8·40 a.m. 8·40 a.m. 7·45 a.m. 10 p.m. 10 p.m. 10 p.m. 10 p.m. 6 a.m. 3 p.m. 6·30 a.m noon	Friday Thur Thur Thur	June 16 June 16 June 16	noon 230 p.m. 10 40 a.m 8 40 a.m. 8 40 a.m. 7 45 a.m. 10 p.m. 10 p.m. 10 p.m. 10 p.m. 3 p.m. 3 p.m. noon

^{*} These dates are liable to alteration should the P. and O. Steamers leave Colombo for K.G. Sound sooner or later than contract time, of which due notice will be given.

MAILS FROM	EUROPE, &c.	MAILS FROM COLONIES, &c.						
Due at K.G. Sound.	Expected at G.P.O.	Leave Melbourne.	Leave Adelaide.	Due at K.G. Sound.	Expected at G.P.O.			
Wednesday, June 1	Saturday, June 4	"Albany:" Tuesday, May 24	Saturday, May 28	Thursday, June 2	Sunday, June 5			
Wednesday, June 15	Saturday, June 18	"P. & O. Steamer:"						
Wednesday, June 29	Saturday, July 2	Tuesday, May 31 Tuesday, June 14	Thursday, June 2 Thursday, June 16	Monday, June 6 Monday, June 20	Thursday, June 9 Thursday, June 23			

TABLE showing the dates of Arrival and Departure of the s.s. "PERTH" and "ROB ROY" at the several Ports between GERALDTON and ALBANY:

Leave Geraldton.			Arrive Albany.	Leave Albany.	Arrive Vasse.	Arrive Bunbury.	Arrive Fremantle.	Leave Fremantle.	Arrive Geraldton.		
"PERTH:" May 31 4 p.m.		June 3	June 4	June 4	June 5	June 7	June 8	June 8	June 9	June 12	June 13
"ROB ROY:" June 14 4 p.m.		June 17	June 18	June 18	June 19	June 21	June 21	June 22	June 23	June 26	June 27

TABLE showing the probable dates of Arrival and Departure of the s.s. "OTWAY" at the several Ports between FREMANTLE and WYNDHAM:

Leave Fre- mantle.	Arrive Gerald- ton.	Leave Gerald- ton.	Arrive Sharks Bay and Gascoyne.	Arrive Cossack.	Leave Cossack.	Arrive Derby.	Leave Derby.	Arrive Wyndham.
OTWAY: June 16	June 17	June 17	June 18 June 19	June 22	June 24	June 27	June 29	July 2
		1			Arrive			
Leave Wyndham.	Arrive Derby.	Leave Derby.	Arrive Cossack.	Leave Cossack.	Gascoyne and Sharks Bay	Arrive Gerald- ton.	Leave Gerald- ton.	Arrive Fre- mantle.
OTWAY: July 4	July 6	July 7	Jaly 10	July 11	July 13 July 14	July 15	July 15	July 16

The English Mails to be despatched on the 3rd and 17th June will be due in London on the 11th and 25th July, respectively.

LETTERS for Registration will be received up to one hour before the time of closing the Mails.

LATE LETTERS for Europe, &c., on payment of a fee of 6d., and for the Colonies, 2d., in addition to the postage, will be received half-an-hour after the time appointed for closing the Mails.

NEWSPAPERS and Book Packets must be posted one hour before the time of closing the Mails, otherwise they will not be forwarded until the next Mail.

PARCEL POST.—Parcels for despatch per Parcel Post to the United Kingdom must be booked before 2 p.m. on the day preceding the closing of the Mail by which they are to be forwarded.

MONEY ORDERS can be obtained at the G.P.O. as under:

On the Australian Colonies, &c., up to Thursday, June 9th, at noon. Thursday, June 23rd, at noon.

On the United Kingdom, India, Ceylon, Singapore, Hong Kong, Cape of Good Hope, and Germany, up to

Thursday, June 2nd, at 2 p.m. Thursday, June 16th, at 2 p.m.

General Post Office, Perth, 23rd May, 1887.

A. HELMICH,

Postmaster General and General Superintendent of Telegraphs.

No. 3096.—C.S.O. 2008

Colonial Secretary's Office, Perth, 30th May, 1887.

IS Excellency the Governor directs the publication of the following Notice to Mariners.

> By Command, MALCOLM FRASER, Colonial Secretary.

NOTICE TO MARINERS.

No. 11 of 1887. SOUTH ENTRANCE TO MORETON BAY.

SOUTH ENTRANCE TO MORETON BAY.

Notice is hereby given, that a New Channel, in which the depth does not exceed 12 feet at low-water springs, has opened out through the South Entrance to Moreton Bay. Vessels of light draught can use it by attending to the following directions:—

When coming from the southward pass to the eastward of the Bar, and approach it on its northern side bringing the S.E. point of Moreton Island, on with the N.W. end of Mount Cotton, bearing S.W. by S.§ S. before crossing the Bar. Keep these marks on, and when on the outer edge of the Bar, and my Point will be on with a dip in the N.W. end of a distant range bearing S. by W.§ W. Then haul up, and steer for the right shoulder of the high land at the Back of Amity Point, until the breakers on the West side of the Channel are passed, when a course may be shaped for the Rainbow or Rous Channel as formerly.

The Channel should not be taken when there is an easterly swell on

The Channel should not be taken when there is an easterly swell on the coast, as vessels using it would be broadside on to the sea while crossing the Bar.

Department of Ports and Harbors, Brisbane, 9th May, 1887.

G. P. HEATH, Commander, R.N., Portmaster.

EASTERN RAILWAY.

Jubilee Train Arrangements.

THE ordinary Time Table will be suspended on Tuesday and Wednesday, the 21st and 22nd June, 1887, in favor of Special running arrangements to be shortly notified.

CLAYTON T. MASON, General Manager, and Maintenance Engineer.

General Manager's Office, May 30th, 1887.

> "The Aborigines Protection Act, 1886." (50th Viet., No. 25.)

Resident Magistrate's Office, York, 25th May, 1887.

NDER the provisions of the 50th Victoria, No. 25, Section 19, I have appointed Mr. Alfred EATON, District Constable, Youndegin, to witness Contracts with Aboriginal Natives.

J. R. M. THOMSON, Acting Resident Magistrate.

NOTICE.

Examination under "The Licensed Surveyors Act, 1886."

Crown Lands' Office, Perth, 23rd May, 1887.

THE Board of Examiners appointed under the above Act will hold as T above Act will hold an Examination, extending from the 20th to the 25th of June next.

Intending Candidates must give a week's notice, in writing, of their intention to apply for a license and come up for examination.

> J. S. BROOKING, Acting Commissioner of Crown Lands.

NOTICE.

Suburban Lands, Eastern Railway.

Crown Lands' Office, Perth, 23rd May, 1887.

T is hereby notified, for general information, that 19 Lots have been surveyed along the Eastern Railway, and are now open to selection for sale by auction, in accordance with the Land Regu-

The upset price has been fixed for the present at £1 per acre.

> J. S. BROOKING, Acting Commissioner of Crown Lands

To Lessees of Pastoral Crown Lands.

Crown Lands' Office, Perth, 23rd May, 1887.

TTENTION is especially called to Clause 64 of the Land Regulations, which provides that any Pastoral Lessee holding a lease under previous Regulations can surrender such lease and obtain a new one under the present Regulations at any time on or before the 1st March, 1888; after that date they will not be allowed to do so.

J. S. BROOKING,

Acting Commissioner of Crown Lands.

NOTICE.

WEST AUSTRALIAN LAND COMPANY, LIMITED.

IN accordance with the provisions of "The Railways Act, 1878," "The Railways Amendment Act, 1879," "The Railways Amendment Act, 1881," "The Railways Amendment Act, 1882," and "The Beverley-Albany Railway Act, 1884," the lands described in the following Schedule will, with the approval and consent in writing of His Excellency the Governor, on and after the 24th day of May, 1887, be entered upon and taken for the purpose of the Great Southern Railway from Beverley to Albany.

Perth, May 21, 1887.

S. S. YOUNG, Managing Director W. A. Land Company, Limited.

SCHEDULE.

	NUMBER.			Quantity		NUMBER.			Quantity	
On Plan	InSurvey Office.	Owners.	Occupiers.	required for making Rail- way.	On Plan	In Survey Office.	Owners.	Occupiers.	Quantity required for making Rail- way.	
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This character † is inserted in lieu of "broad arrow," to denote that the land is a Crown Reserve.

In the matter of "The Railways Act, 1878," and the Railways Amendment Acts of 1879, 1881, and 1882, and "The Beverley-Albany Railway Act, 1884," and of certain land intended to be taken and resumed for the purposes of the Great Southern Railway:—

OTICE is hereby given that a Map or Plan showing the course to be taken by the Railway, together with a Book of Reference, as mentioned in Section 10 of the above Acts, giving a list of owners and occupiers of land, and showing the quantity of land required to make the Great Southern Railway, from Beverley to Albany, has been deposited and can now be inspected at the offices of the Commissioner of Railways and Messrs. Forrest & Angove in

Perth, at the offices of the Company in Albany, and at the offices of the Resident Magistrates at Albany, Williams, and York.

S. S. YOUNG,

Managing Director W. A. Land Company, Limited.

N accordance with the provisions in "The Railway Acts, 1878, 1879, 1881, and 1882," and of "The Beverley-Albany Railway Act, 1884," I hereby certify that the above Book of Reference is correct.

J. ARTHUR WRIGHT,

23rd May, 1887.

Commissioner of Railways.

N accordance with the provisions in "The Railway Acts, 1878, 1879, 1881, and 1882," and of "The Beverley-Albany Railway Act, 1884," I hereby approve of and consent to the land as above described in the Book of Reference being taken for the purpose of constructing the Great Southern Railway, from Albany to Beverley.

23rd May, 1887.

F. NAPIER BROOME, Governor.

DEPARTMENT OF LAND TITLES.

Transfer of Land Act, 1874, and the Real Property Limitations Act, 1878.

TAKE NOTICE that John William Young of Marblup A near Albany farmer has made application to be registered as the proprietor of an estate in fee simple in possession in the following parcels of land situate in Albany aforesaid being

Building Lot S 102 (Oa. 3r. 24p.) Bounded on the W. by 150 links of York Street. On the E. by a like distance of Aberdeen Street. On the S. by Building Lot S 101 and On the N. by Building Lot S 103 each six chains.

Building Lot S 103 (Oa. 3r. 24p.)
Bounded on the W. by 150 links of York Street.
On the E. by a like distance of Aberdeen Street.
On the S. by Building Lot S 102 and
On the N. by Building Lot S 104 each 6 chains.

AND FURTHER TAKE NOTICE that all persons other than the applicant claiming to have any estate right title or interest in the above parcels of land ARE HEREBY REQUIRED to lodge in this Office on or before the 2nd day of July next a caveat forbidding the same from being brought under the operation of the Act.

Land Titles' Office, Perth, Registrar of Titles. 25th May, 1887.

E. G. S. Hare, Solicitor for the Applicant.

F. A. MOSELEY,

$\frac{4.7}{8.7}$ Transfer of Land Act, 1874.

AKE NOTICE that David Young of Marblup farmer has made application to be registered as the proprietor of an estate in fee simple in possession in the following parcel of land situate in the Plantagenet District containing about 50 acres being

Location 145.

Bounded on the W. by a South line of 1111 links from the S.W. corner of Location 117.

On the N. by the South boundaries of Locations 117 and 116 extending East 45 chains from said corner and On the South and East by lines parallel and equal respectively to the North and West boundaries. Bearings the C. Who along of explicit is possible respectively. true. The claim of applicant is partly possessory in its nature.

AND FURTHER TAKE Notice that all persons other than the applicant claiming to have any estate right title or interest in the above parcel of land ARE HEREBY REQUIRED to lodge in this Office on or before the 9th day of July next a caveat forbidding the same from being brought under the operation of the Act.

F. A. MOSELEY, Registrar of Titles. Land Titles' Office, Perth, 12th May, 1887.

E. G. S. Hare, Albany, Solicitor for Applicant.

Transfer of Land Act, 1874.

 $\frac{39}{87}$

TAKE NOTICE that William Afric Tanner of St. TAKE NOTICE that William Afric Tanner of St. Nicholas-at-Wade in the county of Kent in England a Clerk in Holy Orders Sir Oriol Viveash Tanner of Quetta East India K.C.B. Henry Charles Baskerville Tanner of Dargre in East India a Colonel in the Bombay Staff Corps and Mary Ellen Cusac of Bedford in England widow have made application to be registered as the proprietors of an estate in fee simple in possession as tenants in common in the following parcel of land situate in the Swan District containing 10 acres being

Location 76.

Bounded on the S.W. by Location 75 about 10 chains extending due North-West or thereabouts from the shore of Prawn Bay in North Fremantle passing through a squared post pointed at the top placed in a trench [] near

the said shore and terminating at another post of smaller dimensions in the angle of a trench []

On the N.W. by a line about 1170 links in length extending due N.E. or thereabouts from the post last mentioned to another post squared and pointed at the top in the angle of a trench []

On the N.E. by a line about 495 links extending due S.E. or thereabouts from the post last mentioned to the shore north of Prawn Bay passing through a stake near the said shore squared and pointed at the top and placed in a trench [] and

On the S.E. by the shore of Prawn Bay.

AND FURTHER TAKE NOTICE that all persons other than the applicants claiming to have any estate right title or interest in the above parcel of land ARE HEREBY REQUIRED to lodge in this Office on or before the 18th day of June next a caveat forbidding the same from being brought under the operation of the Act.

F. A. MOSELEY, Registrar of Titles.

Land Titles' Office, Perth, \ 17th May, 1887.

Leake & Harper, Perth, Solicitors for the Applicants.

Transfer of Land Act, 1874; and the Real Property Limitations Act, 1878. 8 6 8 6

TAKE NOTICE that Esther Alice Attwood wife of Edwin Attwood of Fremantle Military Pensioner has made application to be registered as the proprietor of an estate in fee simple in possession in the following parcels of land situate in Fremantle being

Town Lots 670, 671, 674, 666 (2 acres 2 roods 19 perches) Bounded (starting from the South-east corner of Town Lot 669) on the West by Town Lots 669, 668, and 667 together measuring 373 links then by the North boundary of said Lot 667 to South Terrace then North 125 links along South Terrace then by the South boundary of Town

Lot 665 measuring 525 links then North by the Eastern boundary of said 665 measuring 125.

On the North by Town Lot 675 measuring 525 links then South by 125 links of a public highway then West by the North boundaries of Town Lots 673 and 672 together

North boundaries of Town Lots 673 and 672 together measuring 262 links.

On the East by Town Lot 672 measuring 498 links and finally by 262 links of South Street to the starting point.

AND FURTHER TAKE NOTICE that all persons other than the applicant claiming to have any estate right title or interest in the above parcels of land ARE HEREBY REQUIRED to lodge in this Office on or before the 6th day of August next a caveat forbidding the same from being brought under the operation of the Act.

F. A. MOSELEY,

F. A. MOSELEY, Registrar of Titles. Land Titles' Office, Perth, ? 27th May, 1887. Stone & Burt, Perth, Solicitors for the Applicant.

The Bankruptcy Act, 1871.

In the Supreme Court, Western Australia. In the matter of Albert Edward Rouse, late of White Quartz Hill Station, Ashburton River, now of Perth, grazier, sheep owner, and pearler, a Bankrupt.

JAMES COWAN, of Perth, Registrar of the said Supreme Court, has been appointed Trustee of the property of the Bankrupt.

All persons having in their possession any of the effects of the Bankrupt must deliver them to the Trustee, and all debts due to the Bankrupt must be paid to the Trustee.

Creditors who have not yet proved their debts must forward their proofs of debts to the Trustee.

Dated this 30th day of May, 1887.

JAMES COWAN, (L.s.)

Registrar.