

TRINIDAD AND TOBAGO.

Council Paper No. 50 of 1932.

MINES DEPARTMENT.

Administration Report of the Inspector of Mines for the year 1931.

*Laid before the Legislative Council on the
29th April, 1932.*

Previous Council Paper No. 56 of 1931.

Registered No. of Correspondence relating to the subject—M.P. No. 9042.

TRINIDAD :
PRINTED BY THE GOVERNMENT PRINTER,
GOVERNMENT PRINTING OFFICE,
PORT-OF-SPAIN.

1932.

[Price 6d.]

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M.P. No. 9642.

HONOURABLE COLONIAL SECRETARY,

I have the honour to submit, for the information of His Excellency the Governor, the following report on the work of the Mines Department for the year 1931.

2. The period under review has been marked by a further fall in prices obtainable for petroleum products in the world's markets with the result that certain companies have found it necessary to drastically curtail their operations. As will be seen from a later paragraph in this report and from Appendix F (G), the footage drilled during the past year was 218,642 feet compared with 372,530 feet drilled in 1930; in fact, not since 1926 has so little drilling been done in the Colony. In spite of this, however, it is gratifying to record that there has been an increase of production of some 324,000 barrels as compared with 1930, this being due to the increased activity by certain companies in the Fyzabad and Palo Seco areas, and by the maintenance of production by working on old wells in other areas.

It is interesting to note that for the first time geophysical surveys have been undertaken. Considerable areas in the Southern district were examined by these methods, but the results of the surveys are not yet available.

In view of the heavy decline in the prices of petroleum in the world's markets, the exports of petroleum and its products, notwithstanding a considerably increased volume, have shown a serious fall in value the figures being:—

1930—7,678,807 barrels valued at	....	....	....	....	£2,790,695
1931—8,964,304 " "	....	....	....	....	£1,949,455

The value of the exports of the leading staples of the Colony during 1931 is shown below:—

	Value £	Percentage of total.
Petroleum Products	1,949,455	46.74
Sugar, Molasses and Rum	934,633	22.41
Cocoa	826,333	19.81
Asphalt	236,597	5.67
Coconuts, Copra and Coconut Oil	115,515	2.77
Bitters	27,288	.66
Coffee	16,080	.39
Other exports not enumerated	64,693	1.55
	<u>£4,170,594</u>	<u>100.00</u>

3. With few exceptions, there has been little new construction work during the past year. The extensions to the pier of the West India Oil Company at Pointe d'Or, mentioned in my last report, have been completed, and the old pier of the Trinidad Oil Fields Operating Company, Ltd., has been demolished. The Trinidad Petroleum Development Company, Ltd., has completed the installation of a plant for recovering light products from natural gas, and this plant is now working satisfactorily. At the time of writing the United British Oilfields of Trinidad, Ltd., have made arrangements for the raising of fresh capital for the purpose of the construction of a new refinery and loading facilities at Point Fortin, and it is expected that this work will be commenced in the near future.

4. The following table will show the number of feet drilled and the quantity of oil produced during 1931 as compared with the years 1929 and 1930:—

	YEAR ENDED 31st DECEMBER, 1929.		YEAR ENDED 31st DECEMBER, 1930.		YEAR ENDED 31st DECEMBER, 1931.	
	Feet drilled.	Oil won Brls. of 35 galls.	Feet drilled.	Oil won Brls. of 35 galls.	Feet drilled.	Oil won Brls. of 35 galls.
Crown Lands	211,024	4,621,567	254,116	5,260,366	138,382	5,325,743
Private Lands	96,310	4,094,085	118,414	4,158,541	80,260	4,417,759
	<u>307,334</u>	<u>8,715,652</u>	<u>372,530</u>	<u>9,418,907</u>	<u>218,642</u>	<u>9,743,502</u>

5. The total number of wells drilled in the Colony to 31st December, 1931, is 1,840 of which 1,155 are on Crown Lands. During the past year 60 wells were drilled of which 34 were on Crown Lands and 26 on private lands, a decrease of 103 compared with 1930. In 43 of these wells oil was struck.

6. The number of concerns engaged in the winning of oil at the close of the year was 14, the same as in 1930.

7. ROYALTY.—The royalty collected in respect of oil won from Crown Lands during the period under review shewed a very considerable increase over that during 1930, the figures being £84,546 14s. 10½d. compared with £77,260 during 1930.

8. WAYLEAVES.—Owing to the fact that the main trunk line of the Trinidad Leaseholds, Ltd., from Fyzabad to Pointe-a-Pierre does not now run along the main roads of the Colony, there has been a considerable falling off in revenue derived from this source, the figures being £6,420 13s. 1d. as compared with £8,585 0s. 0d. during 1930.

9. FEES.—Fees charged for crossing the foreshore, Trinidad Government Railway and public roads amounted to £670.

10. Last year licences were issued as follows:—

Exploration License to United British Oilfields of Trinidad, Ltd., over 7,804 acres Crown Lands to carry out a geophysical survey Reg. No. 2,178 of 1931.

Exploration License to United British Oilfields of Trinidad, Ltd. over 1,715 acres Crown Lands for the purposes of carrying out a geophysical survey Reg. No. 4046 of 1931, supplemental to No. 2178 of 1931.

In addition to the above, Prospecting License to the Apex (Trinidad) Oilfields, Ltd., Reg. No. 4159 of 1928, was further extended for one year from 1st September, 1931 by Deed Reg. No. 4582 of 1931; Prospecting Licenses Nos. 2716 of 1928, 1186 of 1929 and 3916 of 1929 to the Trinidad Petroleum Development Company, Ltd., were further extended to 31st January, 1932; Prospecting License No. 390 of 1929 to the Trinidad Leaseholds, Ltd., was extended for one year from 1st January, 1931, by Deed Reg. No. 1051 of 1932, and Prospecting License Reg. No. 1742 of 1929 issued to the Venezuelan Consolidated Oilfields, Ltd., was assigned to the Siparia Trinidad Oilfields, Ltd. by Deed Reg. No. 1532 of 1931 and extended for one year from 1st May, 1931 by Deed Reg. No. 2995 of 1931.

11. RETURNS.—The various oil companies have regularly forwarded to the Department the returns required to be submitted by them in respect of their operations. After being carefully checked, these have been filed with the records of the Department.

12. A large number of inspections have been carried out by the Officers of the Department in connection with the various operations taking place on the fields, and I have much pleasure in reporting that the Managers readily co-operate with the Department in endeavouring to carry out the provisions of the Ordinance and Regulations.

13. LEGISLATION.—During the past year the following legislation was passed viz:—

- (a) An Ordinance relating to Air Pressure Tanks.
- (b) Drilling Regulations, 1931.

The former provides for a regular testing of air pressure tanks installed in petrol filling stations and in industrial establishments for the starting of internal combustion engines, whilst the latter replaces the Boring Regulations dated 28th June, 1923.

SAN FERNANDO BRANCH OF THE DEPARTMENT.

14. A report by the Petroleum Technologist on the working of his branch is enclosed at Appendix B.

PREVENTION OF ACCIDENTS ORDINANCE, CAP. 157.

15. During the period under review 151 factories in Trinidad and Tobago were worked. Taking the factories as a whole, the owners and Managers co-operate satisfactorily with the Department in ensuring safety to the workmen in their employment.

QUARRIES.

16. From inspections made the various quarries in the Colony have on the whole been found to have been worked in a careful manner, the number operated during the period under review being 79 as compared with 80 during 1930.

PETROLEUM ORDINANCE, CAP. 145.

17. In all 507 licenses to store and sell petroleum products were issued during the year. It is satisfactory to note that as a rule care is taken in petrol service stations to ensure safety.

ASPHALT INDUSTRY ORDINANCE, CAP. 147.

18. No asphalt has been dug on the village lots at La Brea since 1914.

APPENDICES.

19. Appendix A shows the list of oil companies operating in the Colony during the year 1931.

20. Appendix "B" Report on the working of the Petroleum Office.

21. In Appendix C will be found the daily average number of persons employed in oilfields and quarries and the quantity and value of minerals obtained during the period under review.

22. A comparative statement of the oil produced and exported is shown in Appendix D.

23. Appendix E shows the amount of oil refined year by year.

24. Appendix F consists of a series of charts depicting in graphical form the progress made in various industries during the past few years.

25. Appendix G shows the relation of mineral exports to agricultural exports.

STAFF.

26. Mr. A. P. Daly, Chief Clerk, was seconded for duty at the Treasury as from the 1st November, 1931, and his duties are being performed departmentally.

Miss M. A. Jack was transferred to the Registrar and Marshal's Department as from the 1st January, 1931, and was replaced by Mr. R. V. O'Neill.

Mr. M. W. Gilkes, Clerk at the Petroleum Office, was appointed to the post of Government Short-hand Writer as from 4th March, 1931, and Mr. C. Niles, who had been acting for Mr. Gilkes, was appointed to succeed him.

I have great pleasure in recording the very able and loyal assistance I have received from members of the staff.

A. P. CATHERALL,
Inspector of Mines.

9th April, 1932.

APPENDIX A.

No.	Companies.	Nature of tenure of lands on which operations took place.		Disposal of Oil.	Remarks
1	Trinidad Leaseholds, Ltd.	Crown lands under lease Private lands	Fyzabad, Barrackpore and Guayaguayare Fyzabad and Barrackpore	Pumped to the Company's refinery at Pointe-a-Pierre, and there refined. Most of the production is exported in bulk	This Company continues to be the most important one in the Colony from the refining and marketing point of view but owing to the economic situation there has been considerable curtailment in both drilling and production. The main production of the Company continues to be obtained from its various holdings in the Fyzabad area where development work, with a resultant decline in production, has been considerably curtailed. Drilling in the Barrackpore Field has been entirely suspended during the year but the production has only slightly declined. Drilling operations have continued in the Guayaguayare District but the production has remained much the same as during 1930.
2	United British Oilfields of Trinidad, Ltd.	Crown lands under lease	Morne L'Enfer Reserve	Sold to United British Refineries, Ltd.	Work by this Company has been entirely confined to the Parry Lands Field of the Morne L'Enfer Forest Reserve. Whilst there has been a decrease in footage drilled, owing to a number of old wells being worked over, the production has increased. The old fields at Point Fortin and Los Bajos have not been worked.
3	Trinidad Central Oilfields, Ltd.	Crown lands under lease	Tabaquite, Guapo and Lizard Springs	Production from Tabaquite and Lizard Springs refined, sold locally and exported; that from Cruse area sold to Trinidad Leaseholds, Ltd.	Very little drilling has been done by this Company. The majority of the production has been obtained from the Cruse Field at Guapo. No drilling was done on the Lizard Springs Field in the Guayaguayare District where there was a decline in the already small production. There has been a small increase in the production from the old field at Tabaquite.
4	Trinidad Lake Petroleum Company, Ltd.	Private Lands	Brighton	The bulk of the production is exported to the United States of America.	Producing only.
5	Petroleum Development Company, Ltd.	Crown lands under lease	Morne L'Enfer Forest Reserve and La Brea	Sold to Trinidad Lake Petroleum Company, Ltd.	Drilling has been suspended by this Company during the period under review; the production has decreased.

6	Apex (Trinidad) Oilfields, Ltd.	....	Crown lands under lease and prospecting License and Private lands	Fyzabad and Siparia....	Crude oil sold to Trinidad Leaseholds, Ltd. Casing Head Petroleum Spirit sold to United British Refineries, Ltd.	This Company is by far the largest producer in the Colony. During the period under review there has been an increase in the footage drilled and a large increase in production.
7	Kern Trinidad Oilfields, Ltd.	....	Crown lands under lease Private lands	La Brea Guapo and Rousillac	Sold to United British Refineries, Ltd.	There was an increase of footage by this Company chiefly due to drilling on its private lands at Guapo. There was a decrease in both footage and production in the Rousillac Area. The total production of the Company shewed a slight increase.
8	New (Oropuche) Trinidad Oilfields, Ltd.	....	Private Lands	Fyzabad	Sold to Trinidad Leaseholds, Ltd.	A subsidiary of the Trinidad Leaseholds, Ltd. No drilling has been done and the production has decreased.
9	Trinidad Petroleum Development Company, Ltd.	....	Private lands Crown lands under lease and prospecting license	Palo Seco Palo Seco, Los Bajos and Santa Flora	Sold to the United British Refineries, Ltd.	The activities of this Company were largely increased during the year with the result that it was the second largest producer in the Colony. Practically all the production was obtained from its holdings in the Palo Seco Area. The results of drilling at Los Bajos were disappointing and operations were discontinued as also at Santa Flora where one well was drilled. A plant for the recovery of light products from natural gas was installed during the year and the products recovered were returned to crude oil in storage.
10	Palo Seco Oilfields (C. C. Stollmeyer).	....	Crown lands under lease	Palo Seco	Sold to Trinidad Leaseholds, Ltd.	Although there was a decrease in drilling the production increased.
11	Trinidad Oil Fields Operating Company, Ltd.	....	Private lands Crown lands	Fyzabad, San Francique and Palo Seco Pointe d'Or and San Francique	Sold to West India Oil Company.	Drilling operations were suspended in the early part of the year by this Company. The production has greatly declined.
12	New Dome Oilfields, Ltd.	....	Private lands	Fyzabad.	Sold to Trinidad Leaseholds, Ltd.	Drilling on the ten acre block in the Fyzabad area held by this Company continued during the year and a considerably increased production resulted.
13	Siparia Trinidad Oilfields, Ltd.	....	Crown lands under Prospecting license	Palo Seco	Sold to Trinidad Leaseholds, Ltd., and Trinidad Petroleum Development Company, Ltd.	Drilling continued and an increased production was obtained.

APPENDIX B.

HONOURABLE INSPECTOR OF MINES.

The year under review shewed an increase of about 3·4 per cent. in production but a decrease in footage drilled of over 40 per cent. on the 1930 figures. Of the total footage 138,382 feet were drilled on land over which the Crown retains the oil rights and 80,260 feet on privately owned land. Undoubtedly both production and footage would have gone well ahead of the 1930 figures if curtailment had not been brought in.

The average number of wells producing monthly shewed a slight decrease over 1930 as follows :

	1930	1931
Wells Flowing	170	185
Wells Pumping	544	504
Wells Swabbing or Bailing	38	60
Wells Air or Gas Lift	19	13
Total...	771	762

With the exception of the flowing wells many of the others were only operated for a short period each month.

The more general use of tubing in new wells brought in has had a beneficial effect on the flowing life of the well.

The greatest production again came from the Fyzabad area with 56·5 per cent. of the total for the Colony divided amongst the companies operating there.

During the year 60 new wells were started of which 34 were on land over which the Crown retains the oil rights and 26 on privately owned lands, making a grand total for the Colony of 1,840 wells; 52 new wells were completed and brought on to production while 35 wells were abandoned for various reasons.

Magnetometer and seismographical surveys have been undertaken of the area between the Pitch Lake and Aripero but the results, if anything, tend to give an unfavourable impression of oil prospects in the area. Both surveys show indications of a large fault with a throw of 900 to 2100 feet running to the south of the Lagoon and in order to get readings from the harder or high velocity beds in the seismic survey heavy shots of 1,000 lb. of dynamite had to be fired 3 to 4 kilometers out to sea on both sides of the Pitch Lake point.

A geophysical survey with four Eötvös torsion balances was made of the south-west corner of the Island. The results are still being worked out in Europe and will be available shortly. Meanwhile a certain amount of surface geology is being carried out to fit in with this geophysical survey.

Owing to the curtailment of operations little of outstanding interest has developed. The acid bottle is coming into more general use for testing the verticality of wells whilst drilling.

Frequent inspections of drilling and production machinery were carried out in conjunction with the ordinary routine duties of the office. New Drilling Regulations were passed into law on 20th February, 1931, and all companies have shewn the greatest willingness to co-operate with this office in all ways.

There were no fatal accidents and no well on fire during the period under review.

Mr. C. Niles was confirmed in his appointment as 2nd Class Clerk in this office on the 7th April.

On 30th November Miss Marjorie Perry, 4th Class Clerk, resigned and was replaced by Mr. L. E. McLear.

C. ERIK CAPITO,
Petroleum Technologist.

3rd March, 1932.

APPENDIX C.

Daily average number of persons employed in Oilfields and Quarries and the quantity and value of minerals obtained during the year ended 31st December, 1931.

Minerals.	Daily average number of persons employed		Total.	Quantity.	Approximate Value.*
	Males.	Females.			
Oil	4,126	76	4,202	9,743,502 Barrels	£1,335,437
Asphalt	738	4	742	123,138 Tons.	76,961
Private Quarries (Limestone, Gravel, &c.)	293	116	409	128,047 Tons	11,429
Government Quarries (Limestone, &c.)	408	104	512	84,573 Tons	13,098

* The values in this column are those returned by owners and managers and represent the value at the place of production.

DRILLING AND PRODUCTION RETURN FOR 1931.

Month.	New Wells Started.		New wells completed as producers.		Wells re-completed as producers.		Wells abandoned.		Total Wells started to date.	Footage drilled during Month.	Production for Month.	Wells producing by					Total Number of Wells Producing	Percentage Wells producing to total Wells drilled.	REMARKS.
	C	P	C	P	C	P	C	P				Flowing.	Pumping.	Bailing or swabbing.	Air or Gas Lift.	Max-i-flow.			
January	7	3	4	1	2	2	4	2	1,790	28,784	821,263.79	171	525	55	10	—	761	42.5	
February	1	3	1	5	1	1	1	1	1,794	19,828	744,518.47	174	525	59	15	—	773	43.0	
March	—	2	5	1	4	2	2	1	1,796	18,058	844,533.62	183	531	53	14	—	781	43.5	
April	4	2	3	1	2	2	1	3	1,802	16,578	798,133.92	186	494	53	11	—	744	41.3	
May	6	1	1	3	2	2	2	1	1,809	22,674	788,528.27	183	505	54	13	—	755	41.7	
June	2	2	4	1	2	1	4	1	1,813	19,162	817,759.95	172	504	58	14	—	748	41.3	
July	1	2	1	2	3	1	1	1	1,816	16,376	842,884.10	174	520	68	13	—	775	42.7	
August	2	2	1	2	2	4	1	1	1,820	17,161	891,908.01	191	508	59	14	—	772	42.4	
September	4	4	3	1	3	—	2	3	1,828	15,726	832,483.12	199	505	65	13	1	783	42.8	
October	2	1	2	2	4	—	3	—	1,831	18,680	844,587.46	195	502	74	15	2	788	43.0	
November	4	1	2	3	2	—	—	—	1,836	12,518	737,189.12	196	464	62	15	—	737	40.1	
December	1	3	3	—	1	—	—	—	1,840	13,097	779,712.76	197	461	65	12	—	735	39.9	
Totals	34	26	30	22	28	15	21	14				Averages.							
Grand Totals	60		52		43		35		1,840	218,642	9,743,502.59	185	504	60	13	—	762	41.4	

C—denotes Crown Oil Rights.
P—denotes Private Oil Rights.

C. ERIK CAPITO,
Petroleum Technologist.

APPENDIX D.

Comparative Statement of oil produced and exported year by year since the inception of the Petroleum industry in the Colony.

	Production in barrels.	Quantity of Crude Oil and Refined Oil exported in barrels.
1905 to 31st March, 1910	10,541	—
1910-1911	225,112	—
1911-1912	285,307	219,582
1912-1913	503,616	122,734
1913-1914	643,516	387,719
1914-1915	1,050,112	348,351
9 months ended December, 1915	671,125	408,188
1916	927,877	975,142
1917	1,602,312	1,079,369
1918	2,082,068	1,305,407
1919	1,841,047	1,406,264
1920	2,083,027	1,034,907
1921	2,354,160	1,223,346
1922	2,444,752	1,615,740
1923	3,050,872	2,432,470
1924	4,056,612	3,224,529
1925	4,386,507	3,606,608
1926	4,971,471	3,988,308
1927	5,380,464	4,456,770
1928	7,684,450	6,361,675
1929	8,715,652	8,243,023
1930	9,418,907	7,678,807
1931	9,743,502	8,964,303
	74,033,009	59,083,242

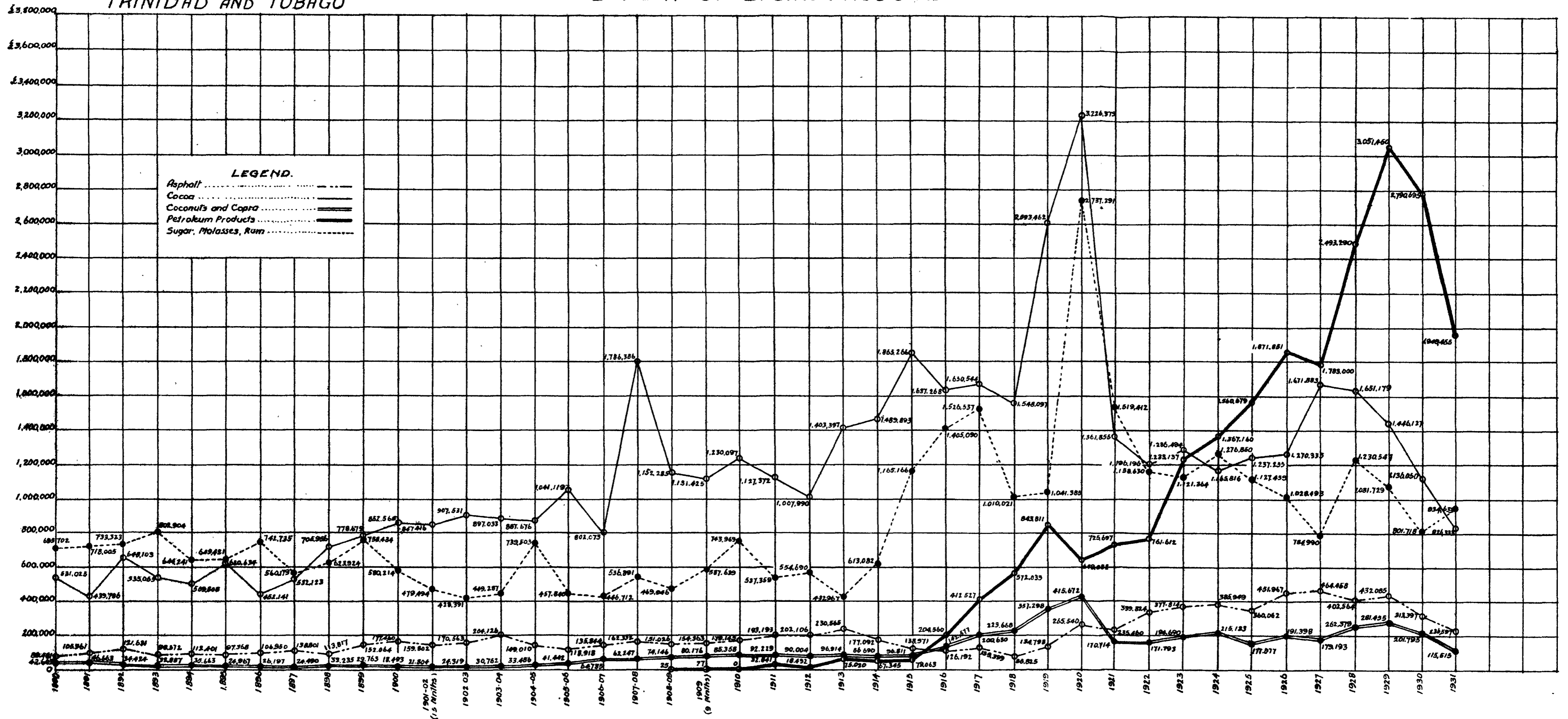
APPENDIX E.

Comparative Statement of oil refined in the Colony.

Previous to 1920....	4,051,373 barrels
1920	1,395,487 "
1921	1,806,016 "
1922	1,820,018 "
1923	2,360,279 "
1924	3,433,902 "
1925	3,790,343 "
1926	3,786,876 "
1927	4,796,223 "
1928	6,725,383 "
1929	7,642,726 "
1930	7,989,679 "
1931	6,899,144 "
Total	56,497,449 "

EXPORT OF LOCAL PRODUCE

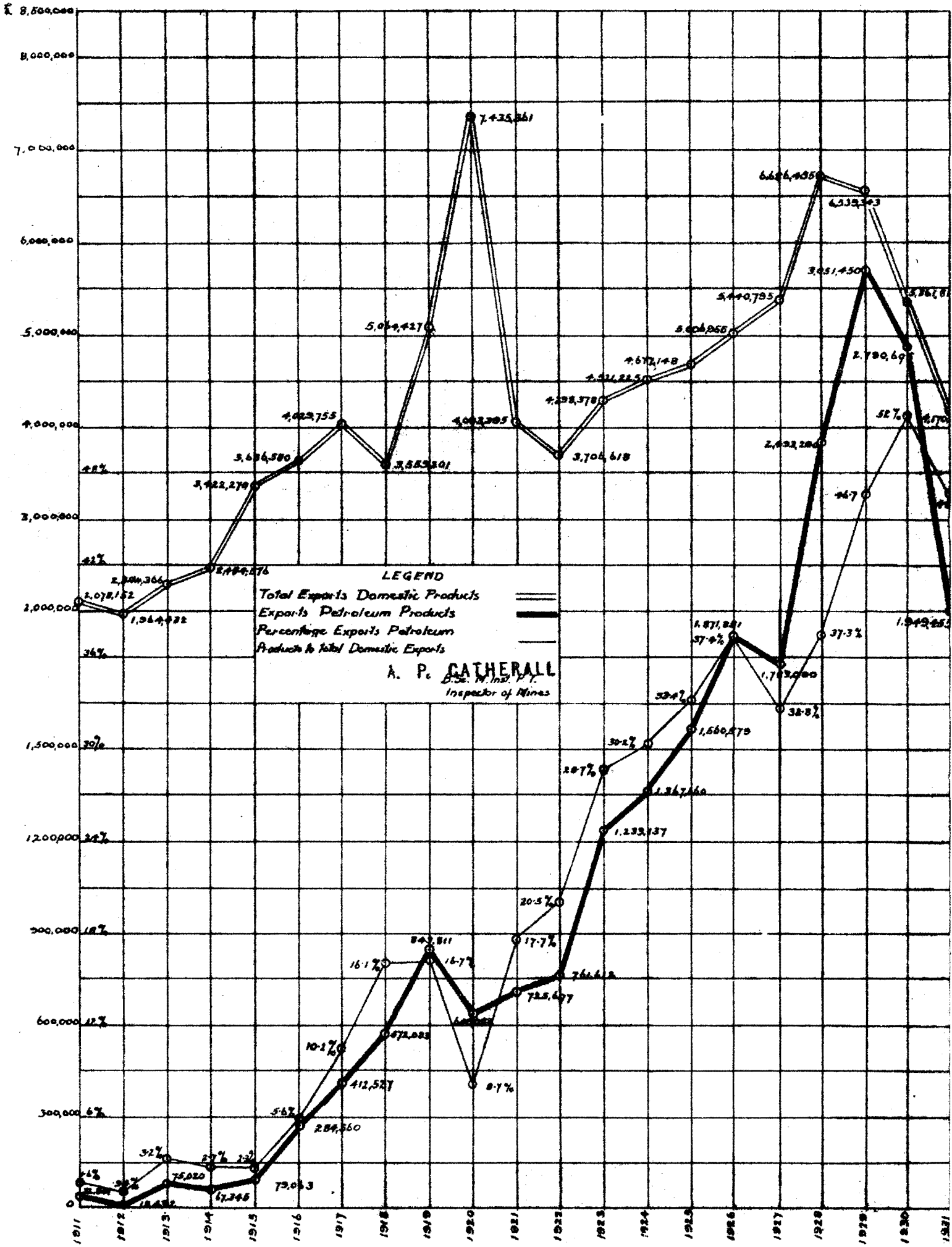
TRINIDAD AND TOBAGO



Appendix F

B

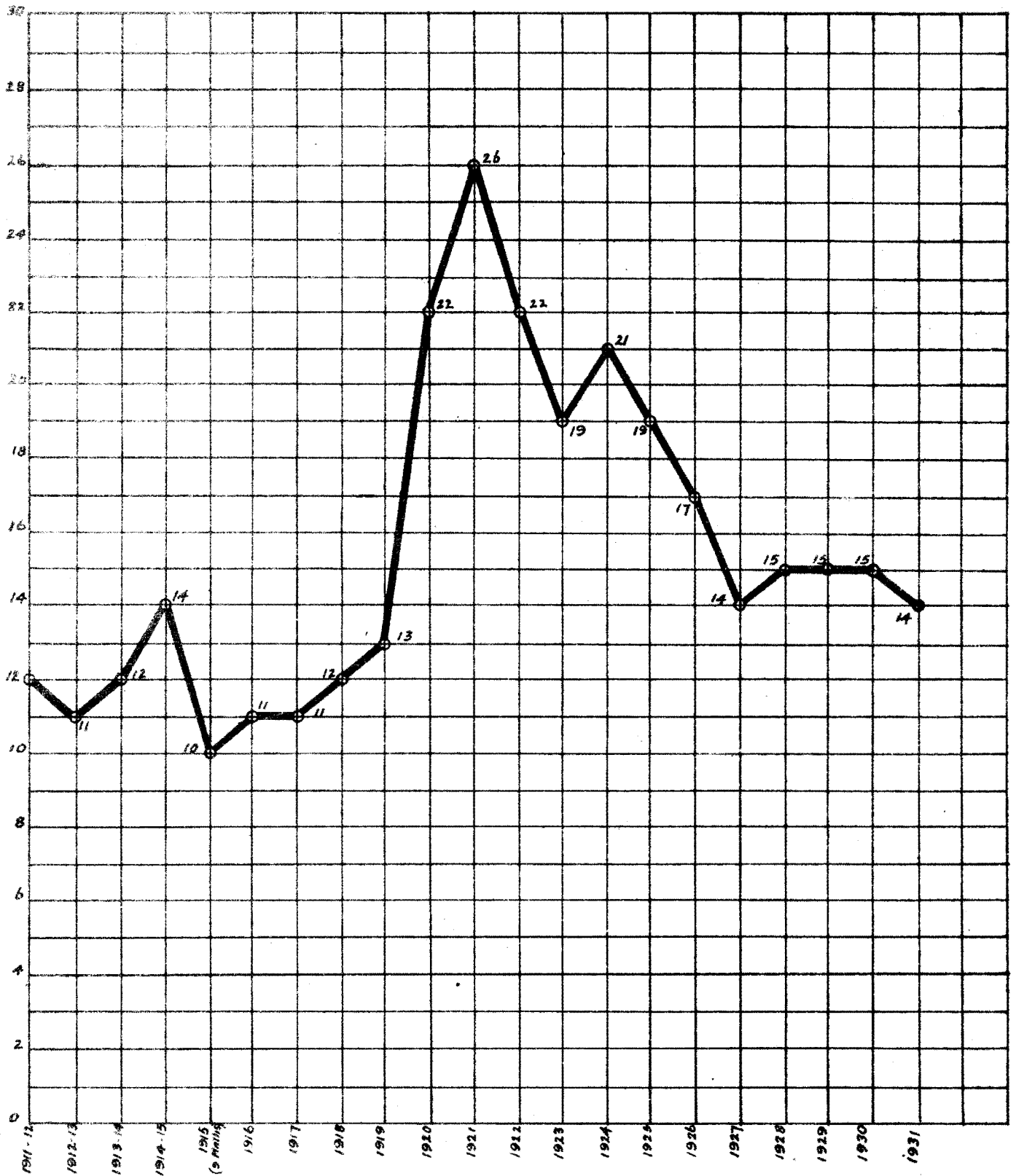
TRINIDAD AND TOBAGO



Appendix F

"C"

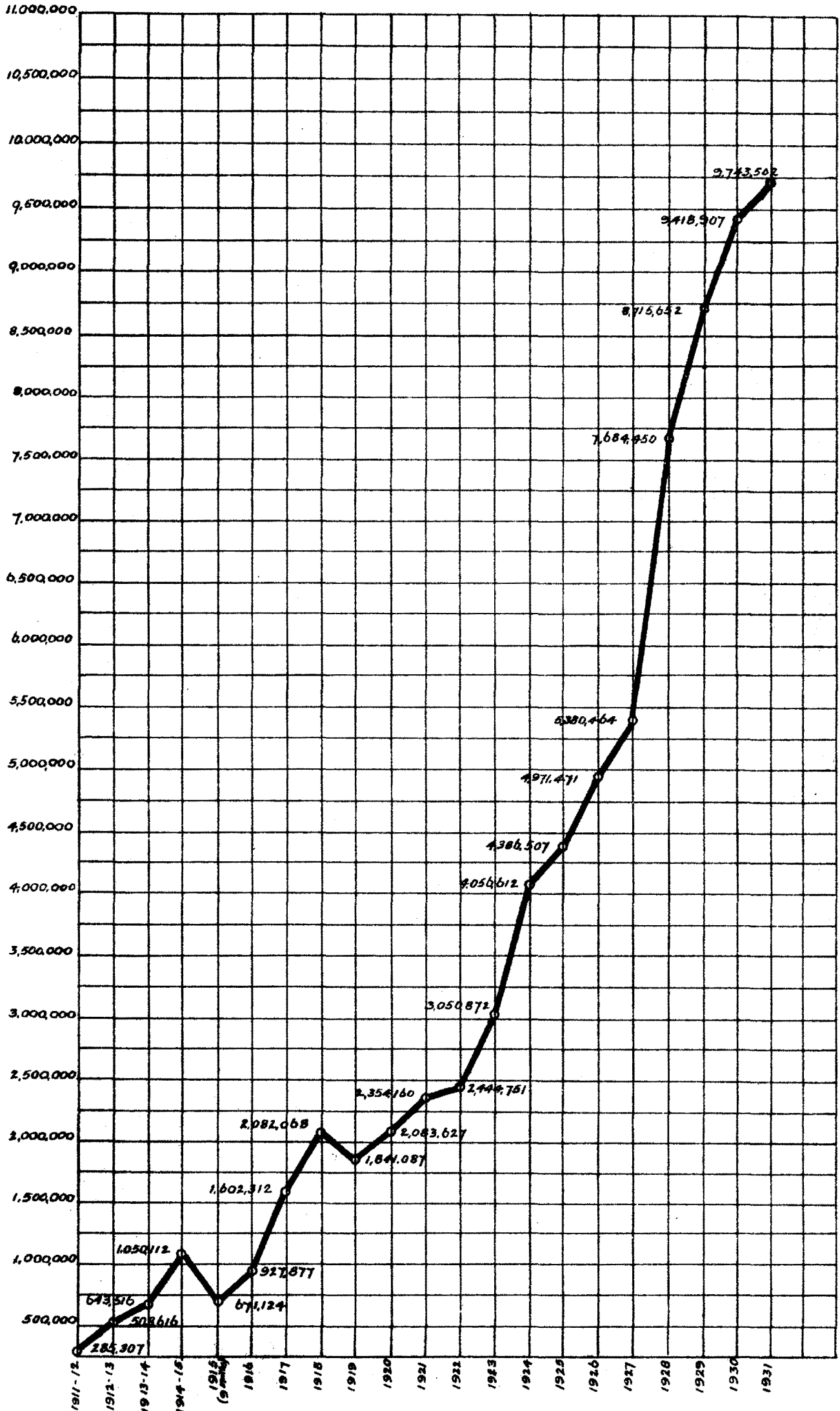
Curve showing the number of Oil Companies that have operated annually in the Colony from 1st. April 1911 to 31st. December 1931



Appendix F

"D"

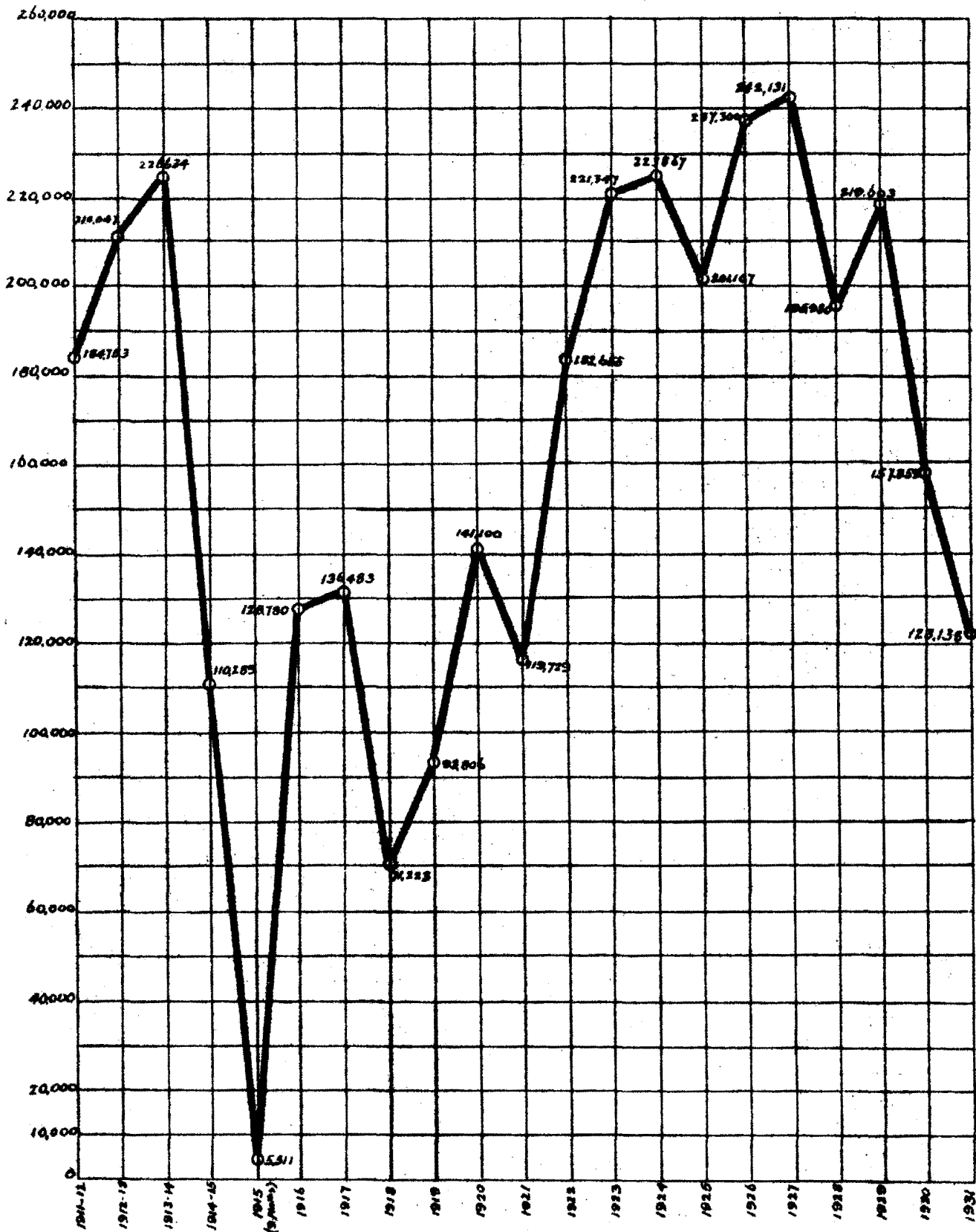
Total Annual Production of Crude Oil in Barrels
One Barrel = 35 Gallons



Appendix F

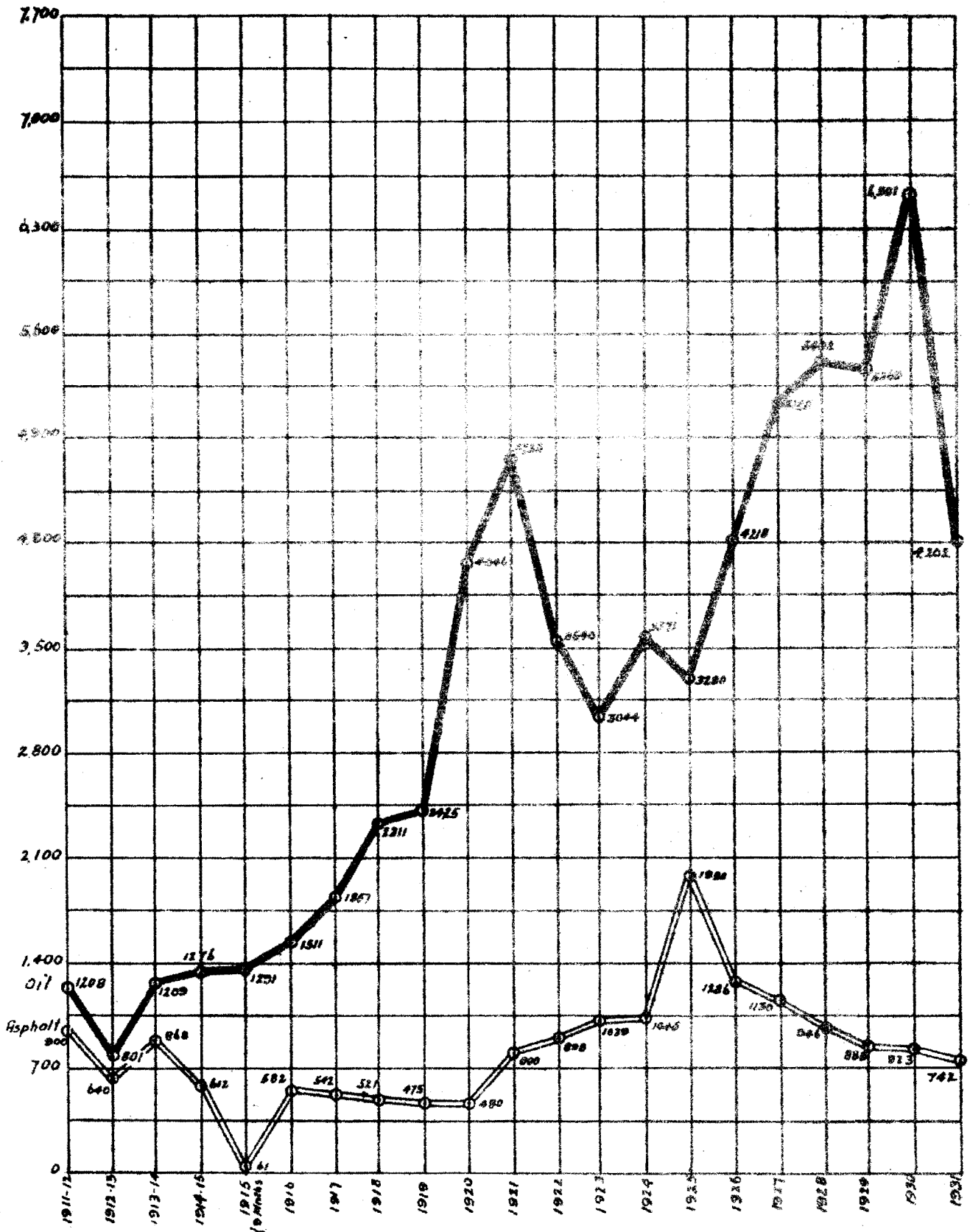
E

Curve showing yearly output of Asphalt from the Colony in Tons from 1st April 1911, to 31st December 1931



Appendix F

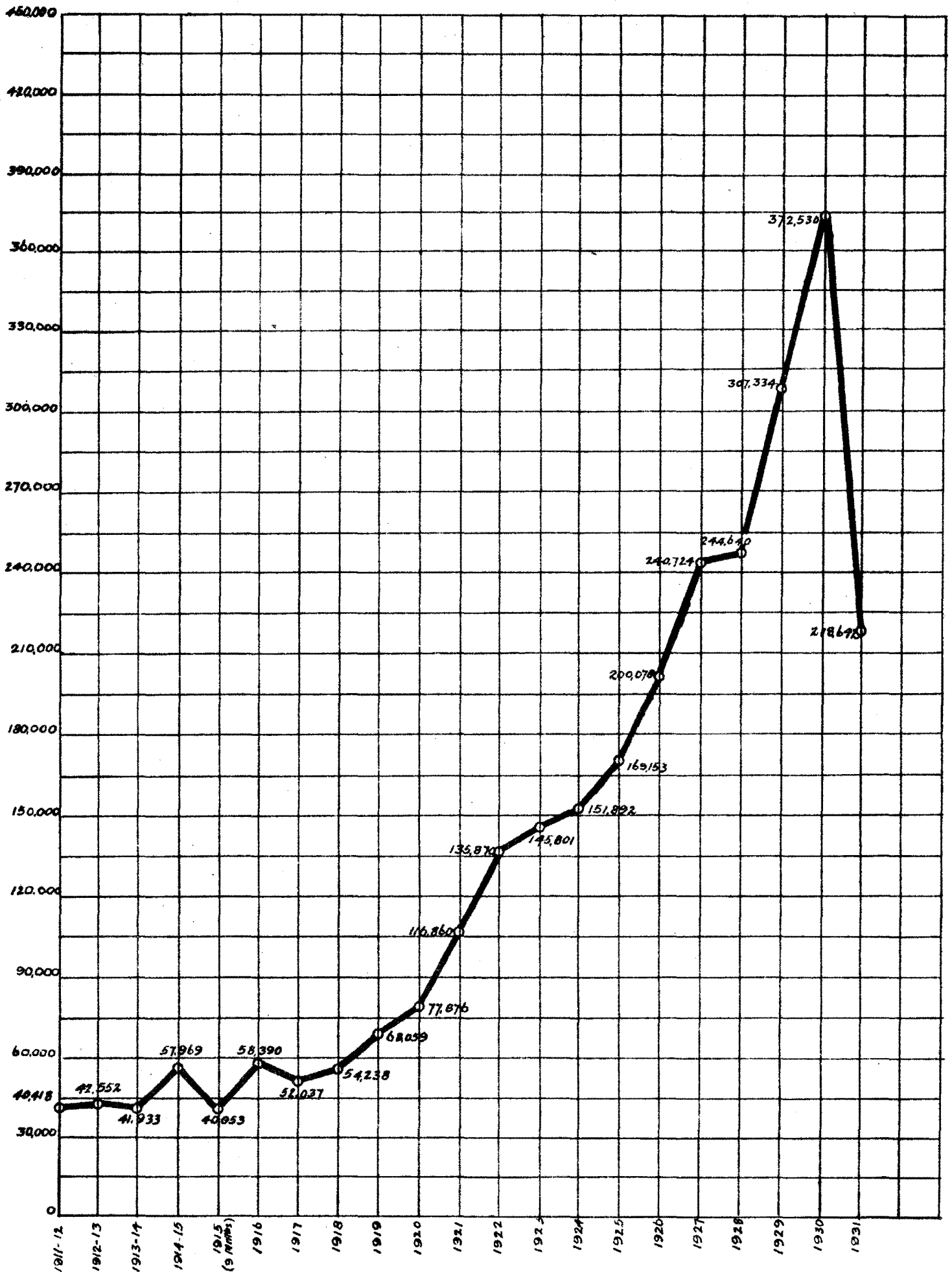
Curve showing comparison of daily average number of persons employed in the Oil and Asphalt Industries of the Colony from 1st April 1911 to 31st December, 1936



Appendix F

"G"

Curve showing yearly total number of feet drilled in the Colony from 1st April 1911 to 31st December 1931

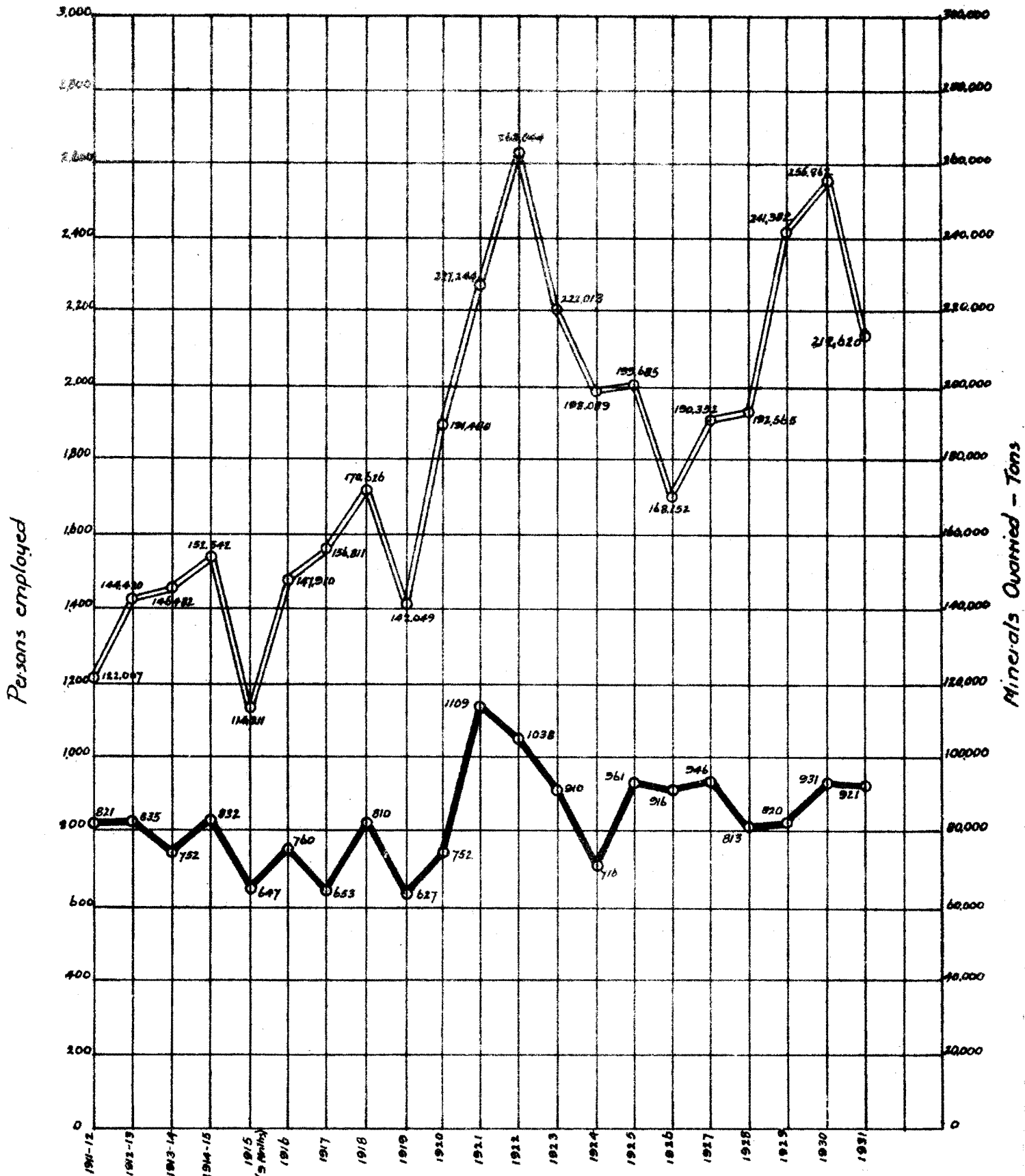


Appendix F

"H"

Curve showing the yearly total quantity of Minerals quarried and a comparison of the daily average number of persons employed in Quarries in the Colony from 1st April 1911 to 31st December 1931

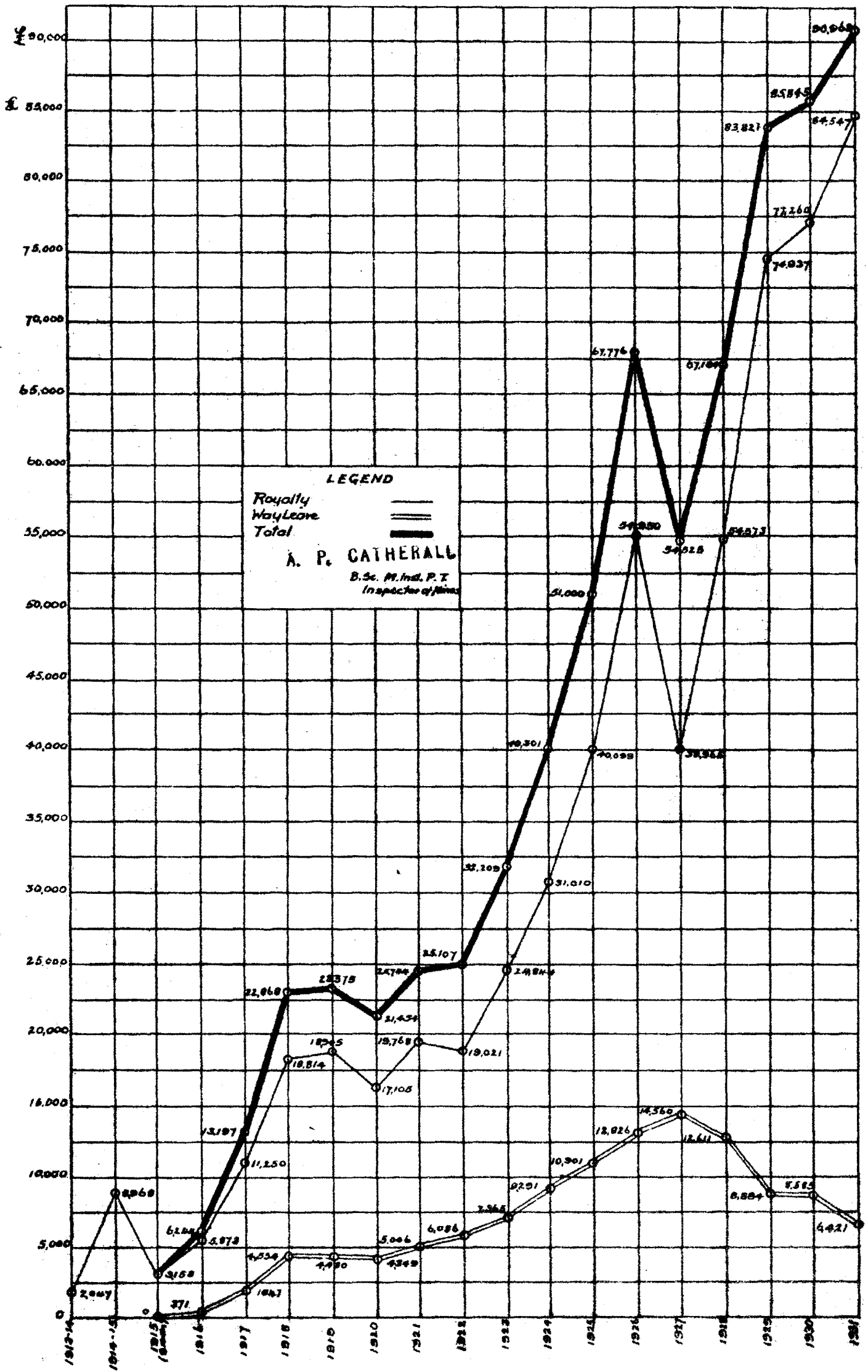
Minerals quarried \equiv Persons employed \equiv



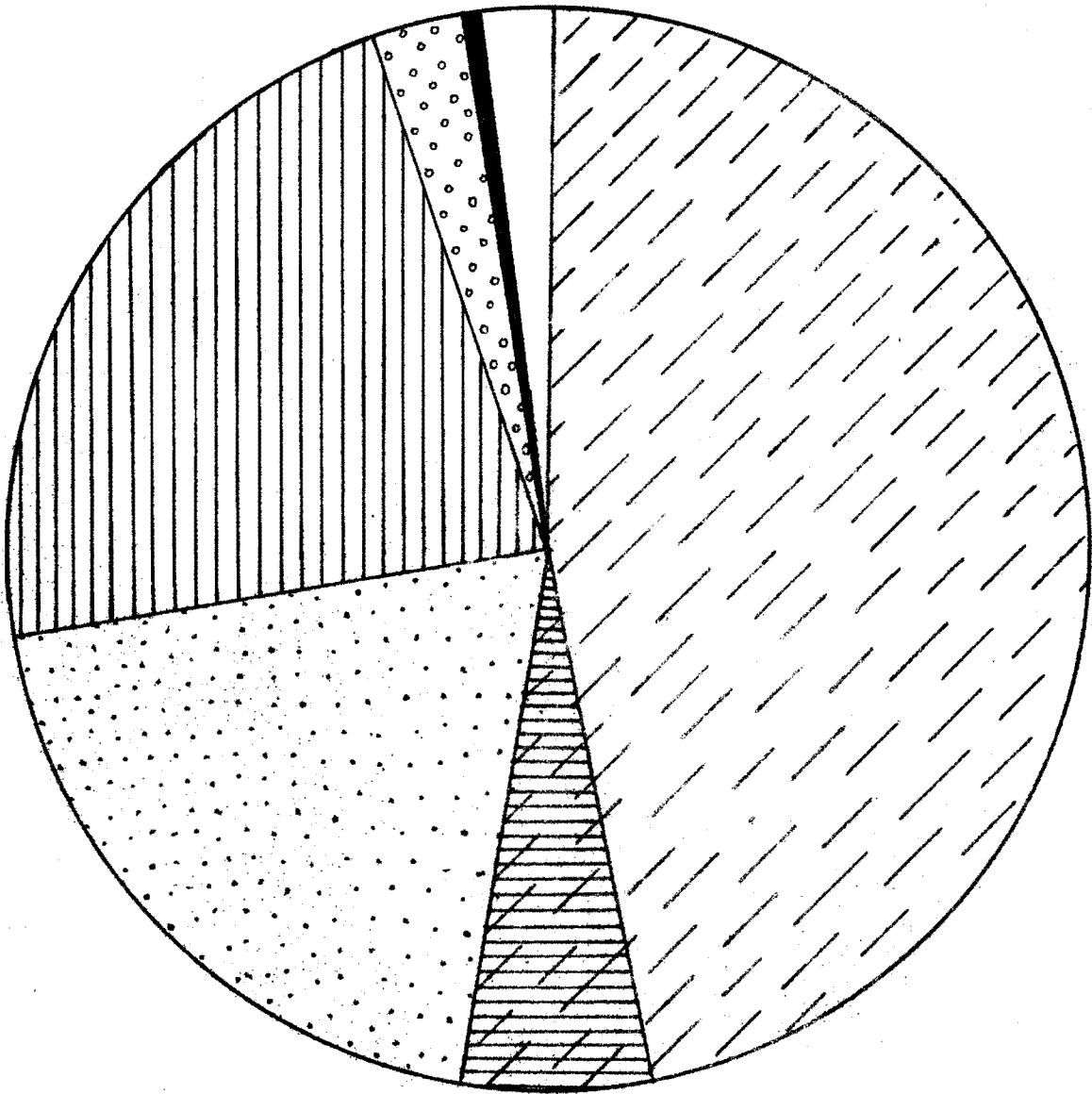
Appendix F

I

ROYALTY AND WAYLEAVE



Appendix G



Mineral Exports 52.4%

Petroleum Products 46.7%

Asphalt 5.7%

Agricultural and other Exports 47.6%

Cocoa 19.8%

Sugar, Molasses, Rum 22.4%

Coconuts, Copra, Coconut Oil 2.8%

Coffee 4%

Other Exports 2.2%