

Spec. Cons.
Repts.

This publication is for
for future use and must
not be mutilated. Please
return to the library

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

A. H. BALDWIN, Chief

SPECIAL CONSULAR REPORTS—No. 45

CORDAGE AND TWINE TRADE IN FOREIGN COUNTRIES



WASHINGTON
GOVERNMENT PRINTING OFFICE

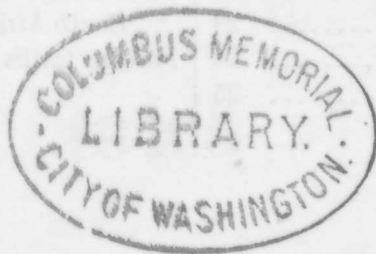
1911

DEPARTMENT OF COMMERCE AND LABOR
U. S. BUREAU OF MANUFACTURES

A. H. BALDWIN, Chief

SPECIAL CONSULAR REPORTS—No. 45

CORDAGE AND TWINE TRADE
IN FOREIGN COUNTRIES



WASHINGTON
GOVERNMENT PRINTING OFFICE

1911

FILE COPY
 COLUMBUS MEMORIAL LIBRARY
 PAN AMERICAN UNION
 JUN 30 1911
 WASHINGTON, D. C.
 U. S. A.

CONTENTS.

	Page.		Page.
Letter of submittal.....	3	Europe—Continued.	
Introduction.....	5	Norway.....	25
North America:		Russia.....	26
Canada.....	9	Spain.....	28
Newfoundland.....	11	Sweden.....	29
St. Pierre.....	11	Turkey.....	31
Mexico.....	12	United Kingdom.....	31
British Honduras.....	15	Asia:	
Honduras.....	16	China.....	33
Panama.....	16	Japan.....	35
Dominican Republic.....	16	India.....	36
Guadeloupe.....	16	Siam.....	37
South America:		British North Borneo.....	37
Argentina.....	17	Straits Settlements.....	37
Brazil.....	18	Java.....	37
British Guiana.....	18	Turkey in Asia.....	38
Chile.....	19	Oceania:	
Ecuador.....	19	Australia.....	38
Paraguay.....	19	New Zealand.....	39
Uruguay.....	19	Society Islands.....	39
Venezuela.....	20	Africa:	
Europe:		Algeria.....	40
Austria-Hungary.....	21	Egypt.....	40
Belgium.....	21	Madagascar.....	40
France.....	22	Portuguese East Africa.....	40
Germany.....	23	South Africa.....	41
Italy.....	24	Foreign tariffs.....	42
Netherlands.....	25		

CORDAGE AND TWINE TRADE IN FOREIGN COUNTRIES

LETTER OF SUBMITTAL.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF MANUFACTURES,
Washington, April 15, 1910.

SIR: I have the honor to submit herewith a series of reports by consular officers on the cordage and twine trade in foreign countries, with a statement of the foreign tariffs on such goods, a brief summary of the American industry, and statistics of exports from the United States during the fiscal years 1909 and 1910. These reports present statistics of the trade in various countries, indicate the character of the goods in demand, the sources of supply, and the extent of the domestic production, and state in general terms the conditions under which American trade can be extended. The data presented should be of assistance to American manufacturers in directing efforts to increase their export business.

Respectfully,

A. H. BALDWIN,
Chief of Bureau.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

3

19465

JUN 23 1915

U.S. DEPARTMENT OF COMMERCE

WASHINGTON, D.C.

STATEMENTS

LETTER OF SUBMITTAL

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES
WASHINGTON, D.C. MAY 17, 1915

I have the honor to submit herewith a series of reports of our
field offices on the cotton and wool trade in foreign countries with
a statement of the foreign trade in such goods, a brief summary of
the American industry, and statistical reports from the United
States during the fiscal years 1909 and 1910. These reports furnish
statistics of the trade in various countries, indicate the character of
the goods in demand, the sources of supply, and the extent of the
domestic production, and state in general terms the conditions under
which American trade can be extended. The data presented should
be of assistance to American manufacturers in directing their
efforts toward their export business.

Very respectfully,
A. H. BARBER

A. H. BARBER
Chief Clerk

To the Honorable Secretary
Department of Commerce and Labor

1915

CORDAGE AND TWINE TRADE IN FOREIGN COUNTRIES.

INTRODUCTION.

In the flax, hemp, and jute manufacturing industry of the United States the cordage and twine branch is the most prominent. It comprises three-fourths of the total number of establishments for the whole industry, two-thirds of all the capital, and three-fifths of the persons employed. The products are quite varied, including ships' hawsers and fine twine, manila and sisal rope, and other cordage.

The value of the rope and twine produced in this country now exceeds \$50,000,000, of which only about 13 per cent is exported, hence an inquiry into the foreign markets for the steadily increasing production of these goods is pertinent. The foreign trade already secured has come mainly through the operations of the harvester-machinery companies, which have developed the sale of binder twine coincident with the placing of their reapers, etc., in the grain fields of the world. The export of binder twine now amounts to nearly \$5,000,000 annually, while the export of all other rope, cordage, and twine reaches only about \$1,500,000.

Among the promising lines for the extension of American foreign trade in this class of goods may be mentioned power-transmission rope especially for long-distance drives. A number of mills in the United States are making this a specialty. It is composed of the highest grade "pure manila." This high quality manila rope is also of especial value in oil-well drilling, on account of its elasticity as compared with wire rope. Its superiority over rope made from an admixture of henequen and other fibers is not yet fully appreciated abroad, where the market therefor might be extended by demonstrations of the real economy in the use of the better American rope.

In order to arrive at the approximate consumption in the United States of rope and twine, the facts as to export and import must be considered for the same year as the Census returns. According to the Bureau of Statistics the exports of cordage and twine from the United States during the fiscal year 1905 were valued at \$5,618,217, of which amount \$4,698,090 represented twine. In the same year the imports of cables, cordage, thread, and twine, other than binding twine, were valued at \$481,174, and the imports of binding twine at \$295,136, a total of \$776,310. With the value of the products of American cordage and twine factories in 1905 stated as \$48,595,788, and the foreign trade taken into consideration, the amount going into consumption in the United States that year represented \$43,753,881 in value. For 1910 it probably exceeded \$50,000,000.

The latest facts available as to the cordage and twine industry in the United States are the Census returns for 1905, with decennial comparisons as follows:

	Census.				Per cent of increase.		
	1905 ¹	1900	1890	1880	1900 to 1905	1890 to 1900	1880 to 1890
Number of establishments....	102	105	150	165	² 2.9	² 30.0	² 9.1
Capital.....	\$37,110,521	\$29,275,470	\$23,351,883	\$7,140,475	26.8	25.4	227.0
Salaries of officials, clerks, etc., number.....	731	436	³ 414	(⁴)	67.7	5.3
Salaries.....	\$999,860	\$666,936	³ \$560,639	(⁴)	49.9	18.9
Wage-earners, average number.....	14,614	13,114	12,385	5,435	11.4	5.9	127.9
Total wages.....	\$5,338,178	\$4,113,112	\$3,976,232	\$1,558,676	29.8	3.4	155.1
Men 16 years and over.....	8,646	7,341	6,412	2,926	17.8	14.5	119.1
Wages.....	\$3,779,835	\$2,751,787	\$2,547,985	(⁴)	37.4	8.0
Women 16 years and over.....	4,999	4,797	5,010	1,480	4.2	² 4.3	238.5
Wages.....	\$1,392,043	\$1,212,823	\$1,280,065	(⁴)	14.8	² 5.3
Children under 16 years.....	969	976	963	1,029	² 0.7	1.3	² 6.4
Wages.....	\$166,300	\$148,502	\$148,182	(⁴)	12.0	0.2
Miscellaneous expenses.....	\$2,508,600	\$1,716,205	\$1,020,697	(⁵)	46.2	68.1
Cost of materials used.....	\$36,095,747	\$26,632,006	\$24,051,666	\$9,330,261	35.5	10.7	157.8
Value of products.....	\$48,017,139	\$37,849,651	\$33,312,559	\$12,492,171	26.9	13.6	166.7

¹ Exclusive of the statistics of 3 establishments engaged primarily in the manufacture of other products. These establishments manufactured cordage and twine to the value of \$578,649.

² Decrease.

³ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

⁴ Not reported separately.

⁵ Not reported.

It will be noted that the increases were greater from 1900 to 1905 in all of the essential elements of comparison than in the preceding decade, 1890 to 1900. Capital increased, in round numbers, 27 per cent, the number of wage earners 11 per cent, the wages paid 30 per cent, the cost of materials 35 per cent, and the value of products 27 per cent. The figures for the two chief products, binder twine and rope, are presented in the following tabular statement for the censuses of 1900 and 1905:

Census.	Binder twine.		Rope.	
	Pounds.	Value.	Pounds.	Value.
1905.....	191,796,047	\$19,514,992	200,824,974	\$19,668,169
1900.....	165,609,429	14,185,581	137,546,204	12,510,793

EXPORTS FROM UNITED STATES.

The following table shows the quantity and value of the exports of cordage from the United States during the fiscal years ended June 30, 1909 and 1910, as compiled by the Bureau of Statistics:

Exported to—	Quantity.		Value.	
	1909	1910	1909	1910
Europe:	<i>Pounds.</i>	<i>Pounds.</i>		
Austria-Hungary.....		68,631		\$5,429
Azores and Madeira Islands.....	15,918	25,444	\$1,627	2,499
Belgium.....	840	13,396	91	1,340
Denmark.....	2,033		264	621
France.....	400	6,561	41	2,296
Germany.....	12,643	22,061	1,240	358
Greece.....		4,618		1,168
Italy.....		14,831		12,870
Netherlands.....	127,196	123,324	12,910	6,735
Portugal.....	74,658	80,177	6,880	7,668
Roumania.....	107,183	69,554	12,322	6,727
Russia in Europe.....	31,438	75,540	3,313	65
Spain.....	1,256	634	80	
Turkey in Europe.....	2,748		195	7,897
United Kingdom.....	110,223	87,184	10,865	
Total.....	486,536	591,955	49,828	55,673

Exported to—	Quantity.		Value.	
	1909	1910	1909	1910
North America:	<i>Pounds.</i>	<i>Pounds.</i>		
Bermuda.....	27,632	20,632	\$2,736	\$1,919
British Honduras.....	82,501	73,324	8,074	6,619
Canada.....	927,221	1,383,107	92,061	122,357
Newfoundland and Labrador.....	59,681	64,489	5,004	5,397
Central American States—				
Costa Rica.....	231,564	345,122	17,689	28,989
Guatemala.....	69,346	49,947	6,180	4,387
Honduras.....	66,696	78,536	6,738	7,193
Nicaragua.....	109,767	88,319	10,047	8,040
Panama.....	1,329,445	1,448,819	113,886	116,716
Salvador.....	17,883	36,188	1,606	3,121
Mexico.....	847,488	1,091,449	84,694	92,910
Miquelon, Langley, etc.....		3,790		330
West Indies—				
British.....	441,429	445,322	36,709	34,749
Cuba.....	693,734	770,535	64,043	65,339
Danish.....	25,939	29,069	2,186	2,527
Dutch.....	54,805	97,843	4,801	8,117
French.....	15,318	14,459	1,113	1,101
Haiti.....	55,402	61,745	4,961	4,760
Santo Domingo.....	130,057	127,680	10,555	9,698
Total.....	5,185,908	6,230,375	473,083	524,269
South America:				
Argentina.....	126,986	186,373	10,026	15,831
Bolivia.....	9,542	8,181	808	814
Brazil.....	98,387	323,530	8,719	27,665
Chile.....	99,235	104,965	8,682	8,997
Colombia.....	177,029	217,941	14,039	17,323
Ecuador.....	326,455	300,951	24,888	21,200
Guiana—				
British.....	52,171	18,471	4,571	1,472
Dutch.....	3,300		324	
French.....	10,406	5,710	1,106	520
Peru.....	937,832	847,353	72,174	63,635
Uruguay.....	18,306	218,573	1,678	15,268
Venezuela.....	807,537	905,851	58,384	64,204
Total.....	2,667,186	3,137,899	205,399	236,929
Asia:				
Aden.....	10,868		845	
Chinese Empire.....	608	35,670	75	2,941
East Indies—				
British India.....	327,274	30,091	40,731	4,006
Straits Settlements.....	9,052	6,573	791	752
Other British.....		240		25
Dutch.....	11,391	6,162	870	850
Japan.....	2,200		300	
Korea.....	828		67	
Russia, Asiatic.....	7,295	2,022	602	208
Turkey in Asia.....	16,221	22,866	1,163	1,594
Total.....	385,737	103,624	45,444	10,376
Oceania:				
British—				
Australia and Tasmania.....	38,679	40,490	4,021	4,115
New Zealand.....	17,340	19,595	1,719	1,959
All other.....	709	431	71	35
French Oceania.....	42,660	87,066	3,946	7,020
German Oceania.....		350		30
Philippine Islands.....	278,706	553,628	24,819	48,969
Total.....	378,094	701,560	34,576	62,128
Africa:				
British Africa—				
South.....	91,219	115,435	9,625	11,006
East.....	5,184		643	
German Africa.....	2,050	2,921	206	321
Liberia.....	157		14	
Portuguese Africa.....	54,174	69,995	6,242	7,010
Total.....	152,784	188,351	16,730	18,337
Grand total.....	9,256,245	10,953,764	825,060	907,712

EXPORTS OF TWINE.

In the following table are shown the exports of twine from the United States during the fiscal years 1909 and 1910. For the former year only the value of the exports of all kinds of twine is given. For 1910 the exports of binder twine are stated separately.

Exported to—	1909	1910		
		Binder twine.		All other twine.
		Quantity.	Value.	
		<i>Pounds.</i>		
Europe:				
Austria-Hungary.....	\$76,997	1,198,990	\$86,439	\$628
Azores and Madeira Islands.....	11			261
Belgium.....	28,918	376,374	24,785	1,225
Bulgaria.....		1,980	124	
Denmark.....	115,041	1,332,965	94,833	200
France.....	62,442	1,699,450	116,106	1,151
Germany.....	117,519	1,926,405	126,473	1,497
Greece.....	481	32,990	2,204	
Italy.....	6,503	309,608	20,756	
Netherlands.....	16,971	126,500	8,490	
Norway.....	2,621	10,615	813	997
Portugal.....	7,100	674,770	49,598	2,496
Roumania.....	49,412			
Russia in Europe.....	722,503	11,054,531	954,387	272
Spain.....	25,840	142,700	9,744	
Sweden.....	66,629	825,565	57,301	674
Switzerland.....	264	66,000	4,625	
Turkey in Europe.....		7,500	520	
United Kingdom.....	366,781	5,574,352	372,121	8,960
Total.....	1,666,033	25,361,295	1,929,319	18,361
North America:				
Bermuda.....	607			521
British Honduras.....	2,716			2,877
Canada.....	1,871,367	15,987,835	1,279,256	239,017
Newfoundland and Labrador.....	72,990			20,006
Central American States—				
Costa Rica.....	1,648			2,943
Guatemala.....	290			698
Honduras.....	987	58	5	1,396
Nicaragua.....	1,450	900	64	1,953
Panama.....	10,422			12,294
Salvador.....	210			810
Mexico.....	11,359	10,023	855	7,074
Miquelon, Langley, etc.....				650
West Indies—				
British.....	8,860			7,654
Cuba.....	10,256			14,372
Danish.....	429			714
Dutch.....	2,259			2,048
French.....	72			56
Haiti.....	2,079			1,958
Santo Domingo.....	2,573			4,184
Total.....	2,000,574	15,998,816	1,280,180	321,225
South America:				
Argentina.....	1,283,294	15,092,886	978,434	97,001
Bolivia.....	319			439
Brazil.....	78,174	35,357	2,391	89,822
Chile.....	15,433	409,954	27,481	4,144
Colombia.....	13,108			15,160
Ecuador.....	10,865	500	35	9,519
Guiana—				
British.....	833			571
Dutch.....	43			37
French.....	261			128
Paraguay.....	480	22,000	1,390	1,458
Peru.....	3,096			3,542
Uruguay.....	124,070	1,230,230	84,947	640
Venezuela.....	8,710			9,537
Total.....	1,538,686	16,790,927	1,094,678	231,998
Asia:				
Chinese Empire.....	468			654
Hongkong.....	1,422			330
Japan.....	4,196			
Korea.....				173
Russia, Asiatic.....	168,589	1,996,037	150,724	507

Exported to—	1909	1910		
		Binder twine.		All other twine.
		Quantity.	Value.	
		<i>Pounds.</i>		
Asia—Continued.				
Straits Settlements.....	\$60			
Turkey in Asia.....	870	4,400	\$280	\$182
Total.....	175,605	2,000,437	151,004	1,846
Oceania:				
British—				
Australia and Tasmania.....	2,424	422,200	25,822	5,031
New Zealand.....	570			1,583
All other.....	404			378
French Oceania.....	4,387			4,738
German Oceania.....	557			241
Philippine Islands.....	3,049			2,702
Total.....	11,391	422,200	25,822	14,673
Africa:				
British Africa—				
West.....	177			353
South.....	18,841	132,750	9,588	309
Canary Islands.....		1,500	101	
French Africa.....	20,467	113,575	7,673	18
Liberia.....	24			109
Portuguese Africa.....	92	1,500	130	1,097
Total.....	39,601	249,325	17,492	1,886
Grand total.....	5,431,890	60,823,000	4,498,495	589,989

NORTH AMERICA.

CANADA.

[By Consul General John G. Foster, Ottawa, and Consul Frederick M. Ryder, Rimouski.]

The manufacture of cordage and binder twine is increasing quite rapidly in Canada. During the fiscal year ended March 31, 1909, the output was 10,590,456 pounds of binder twine and 6,770,165 pounds of cordage. During the fiscal year 1910 the output was 18,400,842 pounds of binder twine and 8,883,248 pounds of cordage. The consumption of manila fiber increased from 10,137,946 pounds in 1909 to 18,041,994 pounds in 1910.

The bounties paid by the Government to manufacturers of cordage and binder twine for the fiscal year 1909 amounted to \$34,561 and in 1910 to \$61,507. The highest bounty to any single company in 1910 was paid to the Plymouth Cordage Co., amounting to \$31,000. The Consumers Cordage Co. came second with about \$13,000. This bounty is equal to the export duty on manila fiber in the Philippine Islands, or about 75 cents per 100 kilos.

BOUNTIES PAID TO CANADIAN FACTORIES.

The following table gives the names of the principal companies in Canada using manila fiber, the amount used, and the Government bounty paid during the fiscal year 1909:

Companies.	Quantity.	Bounty.
	<i>Pounds.</i>	
Canadian Cordage & Manufacturing Co., Peterboro, Ontario.....	1,376,576	\$4,693
Brantford Cordage Co., Brantford, Ontario.....	873,363	2,977
Colonial Cordage Co., Toronto, Ontario.....	537,314	1,832
Consumers Cordage Co., Montreal, Ontario, and Dartmouth, Nova Scotia.....	3,968,890	13,530
Kingston Penitentiary Twine Factory, Kingston, Ontario.....	556,461	1,897
Farmers Binder Twine Co., Brantford, Ontario.....	502,644	1,714
Plymouth Cordage Co., Welland, Ontario.....	2,322,698	7,918
Total.....	10,137,946	34,561

In addition to these companies the Manufacturers List gives the following companies as engaged in the manufacture of cordage: Hamilton Cotton Co., Hamilton, Ontario; M. B. Perine & Co., Doon, Ontario; Independent Cordage Co., Toronto, Ontario; Perth Flax & Cordage Co., Stratford, Ontario.

IMPORTS OF CORDAGE AND TWINE.

Imports of cordage, rope, and twine into Canada during the fiscal years ended March 31, 1909 and 1910, were as follows:

Articles and countries.	1909		1910	
	Quantity.	Value.	Quantity.	Value.
Cordage, cotton, of all kinds:	<i>Pounds.</i>		<i>Pounds.</i>	
Austria-Hungary.....			3,885	\$383
Netherlands.....			221	22
United Kingdom.....	45,946	\$5,141	481,968	57,472
United States.....	56,349	8,794	174,231	23,413
Total.....	102,295	13,935	660,305	81,290
Twine, sail, flax or hemp:				
France.....			300	14
United Kingdom.....	4,210	710	11,093	2,278
United States.....	85	17	4,102	438
Total.....	4,295	727	15,495	2,730
Twine, binder:				
United Kingdom.....	109,851	10,626	334,933	27,442
United States.....	14,827,010	1,459,268	21,826,246	1,745,143
Total.....	14,936,861	1,469,894	22,161,179	1,772,585
Twine and rope for fisheries:				
Austria-Hungary.....		1,032		811
Japan.....		18,787		46,231
Newfoundland.....		4,274		2,577
Norway.....		1,095		3,650
United Kingdom.....		394,709		391,799
United States.....		428,087		455,018
All other countries.....		255		39
Total.....		848,239		900,125
Cordage and twine, all other:				
Austria-Hungary.....	7,960	1,228	3,338	790
France.....	1,121	249	4,227	351
Germany.....	100	15	420	68
Japan.....	17	4	630	12
United Kingdom.....	939,670	107,364	1,327,964	121,212
United States.....	657,874	81,256	832,168	90,186
All other countries.....	2,380	141	1,199	104
Total.....	1,609,122	190,257	2,169,946	212,723

EXPORT TRADE IN CORDAGE, ROPE, AND TWINE.

Exports of cordage, rope, and twine of Canadian manufacture during the fiscal years 1909 and 1910 were as follows:

Countries.	1909	1910	Countries.	1909	1910
Argentina.....	\$1,438	\$8	Newfoundland.....	\$1,015	\$3,125
Bermuda.....	105	423	New Zealand.....	447	1,047
British Africa.....	3,960	12,662	Russia.....		13,015
British Guiana.....	5,776	5,517	St. Pierre.....	499	25
British West Indies.....	24,948	24,677	United Kingdom.....	21,695	19,197
British possessions, other.....	4	1,084	United States.....	1,230,740	707,120
China.....	245	1,143	All other countries.....	160	
Cuba.....	752	1,730	Total.....	1,310,808	801,944
France.....	40	2,062			
Mexico.....	18,984	9,109			

Reexports of foreign cordage, rope, and twine during the fiscal year 1909 were as follows: To the United Kingdom, \$831; Newfoundland, \$1,238; United States \$9,305; total, \$11,734. During 1910 they were as follows: To the United Kingdom, \$1,372; Newfoundland, \$325; United States, \$2,683; total, \$4,380.

Canadian manufacturers of cordage have about succeeded in controlling the Canadian market, with the exception of binder twine. The greatest factors in determining the market are price and quality. Transportation facilities give American manufacturers an advantage over other foreign countries and enable them to compete directly with Canadian producers, who are the chief factors in the market. Terms of credit are practically the same as those prevailing in the United States. Importers prefer to deal direct with the manufacturers.

The Canadian tariff not only protects the domestic manufacturer but also gives the British exporter an advantage. This has led at least one American concern to establish a branch factory in Canada, and it is rapidly becoming a strong factor in the trade.

NEWFOUNDLAND.

[By Consul James S. Benedict, St. Johns.]

Most of the rope in use here is manila, with smaller quantities of sisal and Russian hemp. The twine is chiefly cotton and Russian hemp, with smaller amounts of jute and Italian hemp. Purchases are made from the United Kingdom, Canada, United States, Belgium, Norway, and St. Pierre, the importers preferring to buy direct from the manufacturer. The imports in 1909 were as follows: From United Kingdom, 320,671 pounds; Canada, 25,183 pounds; United States, 109,856 pounds; other countries, 79,149 pounds. The market for rope is limited, but there is a large demand for cotton twine, especially when the fisheries are good. A large ropewalk in this city makes rope, twine, and nets from various kinds of fiber, those most used being hemp, jute, sisal, manila, and cotton.

ST. PIERRE ISLAND.

[By Consul Douglas Jenkins, St. Pierre.]

No rope is manufactured in St. Pierre and as the inhabitants are engaged almost exclusively in the cod fisheries the importation of cordage each year is considerable. France supplies by far the greater part of this demand and the United States comes second. Because of the tariff in favor of French manufactures the quantity of rope imported from the United States is not more than one-fifth of the total.

The rope used in St. Pierre is confined almost entirely to manila and hemp, though there are occasional importations of other materials. Manila is used for rigging generally for the fishing schooners, though the lanyards are made of hemp. The trawl cod lines are also of hemp. The rope varies in size from $1\frac{1}{4}$ to $1\frac{1}{2}$, 2, $2\frac{1}{2}$, $2\frac{3}{4}$, and 3 inches. Six, 9, and 12 inch cable rope is also imported. The importation of 18, 20, and 4 pound cod line is extensive. These lines are between 360 and 400 feet in length.

IMPORTS IN 1909—TRADE METHODS.

In 1909, 41,000 pounds of manila and 50,000 pounds of cotton cordage, the latter being almost entirely lines, were imported from

the United States. The total value of this cordage was about \$7,000. The value of all cordage imported from France and other countries during the same period was approximately \$37,000. Manila was the principal fiber, with hemp next, and cotton third.

American-made rope is regarded as the best to be obtained and were it not for the duty the imports from the United States would be greatly increased. The price for cordage imported during 1910 averaged from 10 to 19½ cents, the latter being paid for hemp cod trawls. This price represents what the St. Pierre importer paid in the United States and France and does not include freight, duty, and other charges.

Buying in the United States is usually done through American commission houses. The terms are generally 30 to 60 days. Buying direct from the manufacturer does not seem to have found favor up to this time.

MEXICO.

The market for rope and twine in Mexico is limited by the domestic production of such articles from native fibers. Binding twine is made in a limited way from sisal in factories at Guadalajara, Sabinas, and Merida. In many sections of the country such rope as is needed is made by native labor on the haciendas. When quality rather than price is the determining factor the imported article is used, and the trade goes to the countries offering the best prices and terms. The United States, the United Kingdom, and Spain seem to be the chief sources of supply.

The following table shows the imports of rope and cordage of various kinds into Mexico during the fiscal year 1908-9, the latest statistics available:

Articles and countries.	Quantity.	Value.	Articles and countries.	Quantity.	Value.
Cordage of cotton, hemp, and similar fibers, 3 centimeters or more in diameter:			Rope and cordage of fibers other than cotton and flax—Continued.		
	<i>Pounds.</i>		More than 1 and less than 3 centimeters in diameter—Continued.	<i>Pounds.</i>	
Belgium.....	3,362	\$273	France.....	736	\$92
Canada.....	5,893	640	Germany.....	28,706	2,651
France.....	21,864	1,252	Japan.....	589	89
Germany.....	8,087	897	United Kingdom...	90,162	8,452
United Kingdom.....	148,737	18,513	United States.....	833,691	51,312
United States.....	488,906	42,654			
Total.....	676,849	64,229	Total.....	1,007,069	65,640
Rope and cordage of fibers other than cotton and flax: Up to 1 centimeter in diameter—			Cotton cord:		
Austria-Hungary...	1,270	245	Austria-Hungary.....	1,616	907
Belgium.....	1,424	254	Belgium.....	6,920	2,059
Canada.....	69,144	5,893	China.....	7	6
France.....	22,485	2,548	France.....	661	226
Germany.....	38,841	8,411	Germany.....	9,010	5,130
Guatemala.....	1,812	85	Italy.....	201	59
Italy.....	4,769	959	Spain.....	778	246
Spain.....	129,835	21,268	United Kingdom.....	9,169	2,227
United Kingdom...	6,250	1,093	United States.....	30,880	10,485
United States.....	75,859	7,649	Total.....	59,242	21,345
Total.....	351,688	48,405	Linen or hemp cord:		
More than 1 and less than 3 centimeters in diameter—			France.....	33	44
Belgium.....	1,665	100	Germany.....	6,208	558
Canada.....	51,520	2,944	United States.....	688	270
			Total.....	6,929	872

ACAPULCO.

[By Consul Marion Letcher.]

The annual imports of rope into Acapulco amount to about 6,000 pounds; the amount of twine is negligible. Manila rope is bought in San Francisco at 7 $\frac{3}{4}$ cents per pound; no other kind is used. Ordinarily orders are filled through brokers. European purchases are made generally at six months' time, but goods are also bought for cash with order and likewise with sight draft with bill of lading. Nearly all the American business is done through brokers.

CHIHUAHUA.

[By Consul L. J. Keena.]

Manila and sisal rope and American hemp and binder twine are in most common use here, purchases being made almost exclusively from the United States. Importers prefer to buy through commission houses as a matter of economy. Commission agents receive a variety of goods for the importer and combine them in one shipment, thereby making a saving in freight and in Mexican consular fees.

ENSENADA.

[By Consul George B. Schmucker.]

All the rope and twine used in this consular district comes from the United States, consisting principally of manila rope, with a smaller amount of sisal. The total imports amount to from \$500 to \$1,000 annually. Importers find it more satisfactory to purchase through commission houses.

FRONTERA.

[By Consul A. J. Lespinasse.]

The rope used here is principally sisal, with small quantities of manila and cotton; the same can be said of twine. There is no prejudice against American-made goods; on the contrary they are preferred but can not compete with the Yucatan-made products in the common grades. Cable and fine twines are, as a rule, imported from England, Germany, the United States, and Spain, in the order named, when price is a secondary consideration. The consumption of rope and twine in this State is not large. It could be entirely controlled by the American manufacturer if he could meet the competition of the Mexican article, which seems almost impossible, as the fiber is grown here and is manufactured into cordage on the spot by very cheap labor. The cordage and twine imports into this district during 1909 were valued at \$6,094, of which the United States furnished \$1,515.

GUADALAJARA.

[By Consul Samuel E. Magill.]

There is not a large market in this part of Mexico for cordage; the ranches and laborers use rope of local make of poor quality manufactured from native fiber. A cordage concern of Montreal, Canada, has

a warehouse at Mexico City, from which it can supply small orders. Some rope made in Merida, Mexico, is marketed here, but the quality is not up to the American standard. This rope is made of sisal grown in Yucatan.

HERMOSILLO.

[By Consul Louis Hostetter.]

Sisal rope and American hemp twine are in common use in this section, purchases being made from the United States and Canada. Importers prefer to deal direct with the manufacturers. There is a good market here and American goods, as a rule, are given preference. I feel sure that if American firms can meet the prices quoted by competitors the trade will go to the United States. Importers are now paying 6 cents per pound f. o. b. Guaymas.

MANZANILLO.

[By Vice Consul Richard M. Stadden.]

No great amount of rope is imported into this district, as the native sogas, made from pita fiber, are generally used. During 1909 imports through this port amounted to 7,605 pounds of manila rope, valued at \$683, and 1,322 pounds of twine, valued at \$140. These were imported from the United States. Purchases are generally made through commission houses in New York and San Francisco.

MAZATLAN.

[By Consul William E. Alger.]

Manila and sisal rope and jute, American hemp, Italian hemp, flax, and cotton twine are in use in this district. Rope and twine are imported from the United States and Germany, principally the former. Purchases are generally made through commission houses, which usually grant their clients from four to six months' credit. If business is done direct, it will be necessary to grant credits of two to four months. Shippers usually prepay freight and other charges, adding such to the invoice. There is no prejudice against American rope and twine, and transportation facilities with the United States are good by both rail and sea. Ixtle fiber is exported from this district, but no rope or twine is manufactured.

NOGALES.

[By Consul Alexander V. Dye.]

Manila and sisal rope and flax and cotton twine are in common use here. The price paid is 7 to 7½ cents per pound f. o. b. factory in the United States or Canada. The larger part of the rope used here comes from the United States, though some shipments are made in larger lots from Canada via the port of Guaymas. These shipments were formerly made by rail, but now they go by way of the Isthmus of Tehauntepec to Guaymas, and part is then sent north by rail to this consular district. Last year cordage was imported into this consular district from the United States to the value of \$3,874 and twine to the value of \$2,341.

NUEVO LAREDO.

[By Consul Alonzo B. Garrett.]

This part of Mexico is not a good market for American-made rope for the reason that each hacienda manufactures such rope as it needs for home consumption from native fibers, and also makes a surplus for sale in the nearest town or city. A small quantity of American-made rope of small size (one-fourth to five-eighths of an inch) is usually kept in stock by merchants, but sales are very small as compared with the general consumption on account of the low prices of the domestic product. Sales of foreign-made rope in this city will not exceed 500 pounds annually.

TAMPICO.

[By Consul Clarence A. Miller.]

Most of the rope used in this section is made from native fibers, and great quantities of fiber are shipped annually from this port. Cotton rope is made by the various cotton factories for their own use. Of the imported articles, manila rope is purchased from England and the United States. A great deal of binding twine is made from sisal at factories at Guadalajara, Sabinas, and Merida. Flax twine made in Germany and cotton twine made in Mexico are commonly used.

Prices of American goods are generally quoted f. o. b. New York, and credits of 30 to 90 days are extended. Six months' credit is given on all goods bought from England. The large importers prefer to buy direct from the manufacturer, while the smaller ones buy through commission houses.

VERACRUZ.

[By Consul William W. Canada.]

The importation of rope and cordage through this port is not large. Shipping is fairly active the year round, but vessels purchase their supplies in foreign ports. Manila and hemp cable and rope, however, are imported. Cord, twine, and light rope made of native fibers are in common use except in the better business houses, which use imported twine. Customhouse records for six months of 1909 show that the total value of rope and cordage imported during that time was \$33,395, of which 22 per cent came from the United States and the remainder from Europe. This gives a fair idea of the amount of business done here in this line.

BRITISH HONDURAS.

[By Consul W. L. Avery, Belize.]

The only rope imported into British Honduras is that made of manila hemp in various sizes, and for 1909 the imports were as follows: From the United States, \$11,001; United Kingdom, \$7,258; Canada, \$418. Cotton twine is imported from the United States and twine used by the fishermen from the United Kingdom. The exact quantities of each can not be ascertained, as rope and twine are classed together in the customs returns. Orders are almost invariably placed with commission houses in New York or New Orleans, who are expected to secure the best terms possible and protect the importer's interests in every way.

HONDURAS.

[By Consul Arminius T. Haeberle, Tegucigalpa.]

The demand for foreign rope in Honduras is small, as there are few industries requiring it. Along the coast there is, of course, a larger demand than elsewhere, and a good deal is used in the interior by freighters. The rope used by the latter in transporting merchandise in ox carts or on mule back is generally made by the natives or imported from Salvador. When the home supply is not equal to the demand, foreign-made rope must be bought. Purchases are usually made through commission houses, with a credit of six months. Freight charges to the interior are about 18 cents gold per arroba of 25 pounds; in addition, there are duties and landing charges. This is essentially a mining district, and as mining develops the demand for rope will increase.

PANAMA.

[By Consul General Alban G. Snyder, Panama.]

Manila and sisal rope and jute, English hemp, Italian hemp, and cotton twine are in use in this country, purchases being made from the United Kingdom, the United States, Germany, and Italy. Importers usually purchase through commission houses, European concerns giving six months' and American houses four months' time. The manila rope in general use here is No. 2.

DOMINICAN REPUBLIC.

[By Vice Consul General Henry P. Lewis, Santo Domingo.]

Imports of rope and twine into the Dominican Republic are almost entirely from the United States. In 1909, according to the receiver general of Dominican customs, the imports were as follows: Threads of fiber to sew sacks, \$2,817; cordage, 5,530 pounds, valued at \$991; rope, 117,365 pounds, valued at \$8,735. Manila and cotton rope and twine made of American hemp, Italian hemp, flax, and cotton are in use. Nearly all business is done through commission houses, and a credit of three months is usually given.

GUADELOUPE.

[By Consul Robert T. Crane.]

Imports of cordage into Guadeloupe from the United States consist chiefly of manila rope; from France come rope and twine manufactured in that country from hemp produced in India, and cotton flax and twine. Sisal and jute imports are insignificant, and American hemp twine makes only a little better showing. Rope is used almost exclusively for shipping and for harness. Flax and hemp twine are in demand for fishing, especially in making nets, and cotton twine for sewing sails. The rope imports in 1909 amounted to 136,637 pounds, valued at \$15,759, of which the United States supplied 20,789 pounds, valued at \$2,185. Most of the purchases are made through commission houses, owing to the general refusal of manufacturers to deal direct with such small buyers.

SOUTH AMERICA.

ARGENTINA.

The following table shows the dutiable imports of manila hawsers, rigging and cordage, and binder twine into Argentina in 1909 and for the five years ending 1909. Although the values stated are the customs valuations fixed for tariff purposes, and not the actual invoice values, the figures serve to show the relative share of the various countries furnishing the merchandise. The Argentine gold dollar, in which the values are given, is equal to \$0.965, and the kilo 2.2046 pounds.

Articles and countries.	1905-1909		1909	
	Quantity.	Value.	Quantity.	Value.
Manila hawsers:	<i>Kilos.</i>		<i>Kilos.</i>	
Belgium.....	67,092	\$11,405	9,883	\$1,680
France.....	22,382	3,804	7,269	1,235
Germany.....	41,701	7,088	13,744	2,337
Italy.....	111,146	18,893	448	76
Netherlands.....	11,757	1,997	1,978	337
United Kingdom.....	1,336,094	227,136	329,915	56,086
United States.....	93,271	15,857	6,337	1,078
Uruguay.....	1,280	218		
Total.....	1,684,723	286,398	369,574	62,829
Rigging and cordage:				
Belgium.....	216,534	39,503	31,741	6,188
British possessions.....	1,073	170		
France.....	110,491	18,522	25,069	4,453
Germany.....	329,416	50,477	32,595	5,855
Italy.....	4,620,564	788,893	736,235	126,143
Netherlands.....	49,383	7,543	15,440	2,185
Norway.....	7,304	1,462	1,627	326
Russia.....	90,479	17,957	17,504	3,385
Spain.....	12,961	1,588	12,304	1,477
Sweden.....	4,687	288		
Switzerland.....	532	75	308	37
United Kingdom.....	2,540,751	448,342	549,595	96,802
United States.....	601,709	106,593	20,755	4,211
Total.....	8,585,884	1,481,413	1,443,173	251,062
Binder twine:				
Australia.....	558	112		
Belgium.....	14,137	2,827	14,137	2,827
Canada.....	69,700	13,940		
France.....	89,494	17,900	1,060	212
Germany.....	351,310	70,262	140	28
Italy.....	94,840	18,968	38,724	7,745
Netherlands.....	66,353	13,271		
Other British possessions.....	1,026	205		
United Kingdom.....	683,734	136,745	23,670	4,734
United States.....	44,482,276	8,896,453	6,227,215	1,245,443
Total.....	45,853,428	9,170,683	6,304,946	1,260,989

The free imports of the foregoing articles into Argentina during the five years ending 1909, which include articles which are imported into the free ports, and those which are exempt from duty either by special laws or by the tariff, were as follows: Manila hawser, 302,162 kilos, valued at \$51,367; rigging and cordage, 386,187 kilos, valued at \$62,903; binder twine, 156,869 kilos, valued at \$31,374. Of these the United States furnished 1,183 kilos of manila hawser, valued at \$201; 13,806 kilos of rigging and cordage, valued at \$2,346, and all of the binder twine.

BRAZIL.

[By Vice Consul General J. J. Slechta, Rio de Janeiro.]

Customs returns indicate that at present there is not a great demand in Brazil for foreign rope and twine, owing chiefly to the high tariff. The imports in 1909 were as follows: Jute and hemp rope, 368,590 pounds, valued at \$40,000; jute and hemp twine and thread, 138,600 pounds, valued at \$36,900; flax rope, 168,300 pounds, valued at \$18,600; flax twine, 11,800 pounds, valued at \$2,700. These are invoice values at point of shipment. Of these imports, Germany and England each furnished about one-third, the remaining third being divided among other countries, except in the case of flax, of which Russia supplied one-third, England somewhat more, and Germany a smaller amount.

DOMESTIC PRODUCTION—MARKET PROSPECTS.

The only estimate of domestic production available is for 1907. The most important factories are in the Federal District and next in importance are those in the State of Sao Paulo. The former in 1907 produced cord and rope to the value of about \$350,000, and the latter about \$225,000. Factories in the State of Pernambuco came third, with a production of about \$185,000. At present the production of domestic factories is probably not far from \$1,000,000.

While the duties are such as not to offer encouragement to American manufacturers desiring to sell rope and twine in this market, it should be noted that apparently American producers and jobbers have not made very strong efforts to get any of the trade. What little effort has been made in this direction has been on the part of general hardware jobbers, who have not given enough time to any one line to really determine the state of the market.

BRITISH GUIANA.

[By Consul Arthur J. Clare, Georgetown.]

Rope of manila hemp, sisal, and Russian hemp and twine of American hemp, Russian hemp, and flax are imported into British Guiana. The terms of payment vary up to three months' credit; cash with order does not appeal to the importer and no business can be done on that basis. The majority of the importers prefer to deal direct with the manufacturers.

No prejudice exists against American rope and twine; it is simply a matter of price and terms. American goods should have an advantage owing to the lower freight rates from the United States as compared with rates from Europe.

The imports of cordage for the fiscal year ended March 31, 1909, were as follows:

Countries.	Cordage.		Twine.	
	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>	
United Kingdom.....	1,447	\$15,028	58,433	\$13,087
Canada.....	625	6,458	1,802	489
United States.....	366	2,981	240	71
Other countries.....	7	79	252	72
Total.....	2,445	24,546	60,727	13,719

CHILE.

[By Consul Alfred A. Winslow, Valparaiso.]

Practically all the rope imported into Chile comes from Europe, the imports in 1909 amounting to 1,258,785 pounds, of which England furnished 70 per cent, Germany 18 per cent, Italy 4 per cent, and the United States 8 per cent. During the same year the twine imports amounted to 67,908 pounds, of which England supplied 42 per cent, Germany 8 per cent, France 11 per cent, the United States 38 per cent, and other countries the remainder. About 85 per cent of the rope imported is manila, 8 per cent Russian hemp, the remainder being divided, with cotton in the lead. Of the twine 35 per cent is American hemp, 15 per cent cotton, 15 per cent Russian hemp, 15 per cent Italian hemp, and 20 per cent flax.

At present most of the rope and twine is imported either by manufacturers' branch houses here or by importing houses with representatives in the exporting countries.

American goods in general are recognized by Chileans as equal to the best. There is no reason why American rope and twine should not find a good market here, if prices and terms can be made to compete with those of European manufacturers. Freight rates are about the same from New York to Valparaiso as from European points.

ECUADOR.

[By Consul General Herman Dietrich, Guayaquil.]

The imports of cordage and twine into Ecuador, as shown by the official statistics, amounted in 1909 to 522,563 pounds, valued at \$59,482, as compared with 625,779 pounds, valued at \$66,313, in 1908, and 677,435 pounds, valued at \$133,090, in 1907.

PARAGUAY.

[By Consul Cornelius Ferris, jr., Asuncion.]

Manila, sisal, Italian hemp, jute, and cotton rope and Italian hemp and cotton twine are in common use in this country. Manila and sisal rope are imported from England, hemp from Spain, and cotton from the United States.

Importers prefer to buy through export commission houses, and they state that while they are not prevented by transportation facilities from buying in the United States, the facilities for transportation from Europe are much quicker. A merchant who handles the greater amount of rope and twine imported into this country estimates that of sisal and manila rope 132,000 pounds each are imported annually, and of hemp and cotton rope 22,000 pounds each. It is considered here that American prices can not compete with European.

URUGUAY.

[By Consul Frederic W. Goding, Montevideo.]

Practically every variety of rope and twine is sold here. All of the binder twine comes from the United States, the remainder of the rope and cordage being imported principally from the United Kingdom and Italy. The imports of rope and twine in 1906 (the latest statistics available) were as follows: Large manila rope, 400 tons, valued at \$14,881; thread, 561 tons, valued at \$86,867.

No prejudice exists against American goods and there is no reason why rope, twine, and thread from the United States should not be sold here in considerable quantities. The usual terms are a sight draft with bill of lading.

VENEZUELA.**MARACAIBO.**

[By Consul Ralph J. Totten.]

This consular district seems a good field for the sale of rope and cordage, the demand for which promises to increase materially within the next few years. The district, of which Maracaibo is the largest city and distributing point, contains not only Lake Maracaibo but also hundreds of miles of navigable rivers and a great system of smaller lakes and lagoons connected with each other and with Lake Maracaibo by rivers and bayous. This territory includes more than 30 towns of 1,000 or more inhabitants. All freight and passenger traffic is conducted by means of sailing vessels. It is estimated that an average of 300 sailboats enter and leave Maracaibo daily. These boats use large quantities of ship chandlery and cordage.

QUANTITY AND CHARACTER OF IMPORTS.

In 1909 there was imported through the customhouse at Maracaibo 125,603 pounds of cordage, valued at \$17,029, of which the United States supplied 65,306 pounds, valued at \$6,085. The United States furnished practically all the rope and over half of the heavy cotton fishlines, while Germany supplied over four-fifths of the twine, and Germany and England most of the sail twine.

The rope used was of three kinds—manila, sisal, and Russian ratline—but statistics do not give the quantities of each. The twine was of all grades and sizes, the kind most used being a hard-twisted twine running from a small, strong cord used for fishing up to the size of window cord used for the sheets of sloops and schooners. This comes from Germany, Italy, and the United States. The large cord or rope comes mostly from the United States. The sail twine, which does not include regular sail thread, is a smooth finish of flax or hemp and is used for sewing rough sails and also largely for sewing coffee and cacao bags.

Freights are naturally cheaper on this class of merchandise from New York than from Europe if by steamer, but the greater part of the heavy nonperishable freight from Germany and England is shipped by sailing vessels that make regular trips to this city, bringing over general cargo and taking back mangrove bark, divi-divi, and woods.

There is no prejudice in this market against American goods. If the merchants can obtain the same values at prices to compete with the cheaper European freights, they would as soon buy from the United States as from Europe. It is advisable, however, to send Spanish-speaking salesmen to introduce goods, learn the special requirements of the market, and to establish selling connections.

PUERTO CABELLO.

[By Vice Consul L. J. Verhelst.]

Imports of rope through Puerto Cabello and Tucacas during the fiscal year ended June 30, 1908, were 235,494 pounds, valued at \$17,896, of which the United States supplied 232,115 pounds, valued at \$17,641. The imports of twine amounted to 13,132 pounds, valued at \$3,058, of which the United States furnished 11,997 pounds, valued at \$2,771. Manila and sisal rope and Italian hemp and cotton twine are in most common use. Importers buy principally through commission houses.

EUROPE.

AUSTRIA-HUNGARY.

[By Consul General Charles Denby, Vienna.]

Austrian and Russian hemp rope and twine are in common use throughout this country. Imports of cordage, which are gradually decreasing because of the cheaper price of the Austrian product, are principally from Germany and the Balkan States, with a small amount from England and America. The imports in 1909 amounted to 1,535 quintals. There seems no opportunity to establish a large trade in American rope and twine, as the Austrian factories produce a good quality of rope at cheaper prices than those at which the imported article can be laid down. Austria exports more rope than it imports.

BELGIUM.

The total imports of cordage into Belgium during 1909 amounted to 4,448,170 pounds, valued at \$428,353, and the total exports to 13,499,350 pounds, valued at \$1,299,959. The imports entered for consumption in Belgium were 2,859,704 pounds, valued at \$275,385, and the exports of domestic manufactures of cordage were 11,910,884 pounds, valued at \$1,146,991. Of the 1,588,466 pounds, valued at \$152,968, imported and afterwards reexported, Germany furnished 457,207 pounds, valued at \$44,028; France, 683,230 pounds, valued at \$64,732; and Netherlands, 356,311 pounds, valued at \$34,312.

The following table shows the origin of the cordage entered for consumption in Belgium in 1909:

Countries.	Quantity.	Value.
	<i>Pounds.</i>	
France.....	818,785	\$78,847
Germany.....	231,556	22,298
Netherlands.....	460,645	44,359
United Kingdom.....	559,864	53,913
United States.....	647,553	62,349
Other countries.....	141,301	13,619
Total.....	2,859,704	275,385

EXPORTS OF BELGIAN CORDAGE.

The following table shows the exports of domestic manufactures of cordage from Belgium during 1909:

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
Argentina.....	214,675	\$20,672	Newfoundland.....	76,060	\$7,324
Australia.....	101,170	9,742	Norway.....	644,221	62,037
Brazil.....	85,819	8,264	Peru.....	68,487	6,595
Chile.....	74,271	7,152	Russia.....	2,276,428	219,217
China.....	161,724	15,574	Siam.....	130,531	12,570
Cuba.....	50,109	4,825	Spain.....	171,894	16,553
Denmark.....	955,966	92,057	Sweden.....	124,631	12,002
Egypt.....	215,206	20,724	Turkey.....	429,228	41,237
France.....	319,337	30,751	United Kingdom.....	2,548,960	245,461
French Indo-China.....	87,891	8,464	United States.....	80,993	7,799
Germany.....	352,975	33,991	Other countries.....	806,235	77,774
Greece.....	228,026	21,958			
Italy.....	35,380	3,407	Total.....	11,910,884	1,146,991
Netherlands.....	1,670,253	160,841			

FRANCE.

PARIS.

[By Consul General Frank H. Mason.]

Statistics showing the imports of twine and cordage according to the material of which it is made are not available, and it is impossible to learn the relative proportion of the several materials employed. The significant fact is the relation of imports to exports, which shows at once whether France exports more than it imports and is therefore a self-supporting country, so far as cordage and twine are concerned.

In 1909 there were entered for consumption in France 264,000 kilos of rope and cordage, valued at \$63,690, and 40,300 kilos of twine, valued at \$18,667 (kilo = 2,046 pounds). During the same year France exported \$763,701 worth of rope and \$319,222 worth of twine.

The quantities of rope and cordage imported from various countries in 1909 were as follows, in kilos: Great Britain, 60,700; Germany, 102,200; Belgium, 48,700; Switzerland, 8,400; Italy, 18,600; Algeria, 13,500; other countries, 11,900. The imports of twine were as follows, in kilos: Germany, 29,300; Belgium, 6,300; Switzerland, 2,800; Algeria, 200; other countries, 1,700.

FRENCH PRODUCTION OF FLAX AND HEMP—SALES METHODS.

The French department of agriculture states that the production of flax fiber in this country in 1909 was 43,953,800 pounds, but how much of it was used for making twine and how much for textile manufacturing it is impossible to ascertain. The production of hemp fiber during the same year was 33,089,540 pounds, practically all of which was made up in France, as there was practically no export of hemp fiber, but on the contrary large imports of hemp, jute, flax, cotton, and other fiber materials.

American manufacturers can always assume that if they wish to sell goods of any kind to a French merchant or importer they will have to comply with the established conditions which have become fixed in this country and are followed by the manufacturers in Belgium, Great Britain, Germany, and other European countries that sell goods to France. The American plan of cash with order, sight draft with bill of lading, or f. o. b. cars or steamers in the United States does not work here, and American manufacturers lose millions of export trade every year by trying to force their local conditions of sale upon foreigners. For goods shipped here the importer should be given 30 or 60 days' time on his payments.

MARSEILLE.

[By Consul General A. Gaullin.]

The cordage industry is an important one in Marseille. In fact, local manufacturers not only control this market, but also export considerable quantities, principally to the French colonies. All the large dealers are manufacturers or agents of French manufacturers. There is almost no import trade in this line. The total imports of twine through Marseille in 1909 amounted to 1,102 pounds, and the rope entered for consumption was 19.5 metric tons, coming chiefly from Belgium, Great Britain, and Germany. The exports for the same period were: Twine, 27 metric tons; rope, 1,095 tons.

French hemp is in most common use, followed by Italian, Russian, manila hemp, in the order named. Jute, sisal, flax, and cotton are not used in large quantities.

The outlook for the introduction of American rope and twine in this district does not appear to be very promising. Binder twine, however, is imported from the United States and the sales could probably be increased, although the price is higher than that of competing articles, its superiority being generally recognized. This trade is handled through Paris firms representing American exporters of agricultural machinery. These firms have branch establishments in all the important centers throughout the country.

The French customs tariff renders competition in this line most difficult. The rates of duty are not only very high, but American exporters are handicapped by the fact that American rope and twine are subject to the general rates, while English, German, and Belgian products of this description are entitled to the minimum rates, a difference of 50 per cent or more in favor of the latter countries.

GERMANY.

HAMBURG.

[By Consul General Robert P. Skinner.]

The German rope industry is in such condition that exports vastly exceed imports, the latter being rendered difficult by an import duty. Such trade as there is in imported ropes appears to be controlled at present by Dutch, Belgian, and English concerns. Efforts have been made at various times to dispose of American rope in Germany, but without substantial success. Indeed, the only serious competition of the German rope makers in Germany is that of English manufacturers. In the Hamburg Free Harbor it has been found possible to dispose of large quantities of English cordage, as in this locality the goods are free of duty. The English industry is a very old one, and English manufacturers have succeeded in supplying first-class rope on competitive terms.

FRANKFORT.

[By Consul General Richard Guenther.]

German imports of rope and cordage of cotton in 1909 were 20.5 long tons, 19 tons coming from Great Britain and 0.8 ton from Austria-Hungary. German exports of such goods in the same year were 43.5 tons, of which 9.7 tons went to Belgium and 6 tons to Austria-Hungary. The imports of cotton twine of more than 1 millimeter were 0.9 ton, coming from Great Britain, while the exports of such twine were 12.5 tons, of which 2 tons went to Great Britain and 2.4 tons to Austria-Hungary.

The imports of rope cordage and twine of more than 1 millimeter, made of other fibers than cotton, were 684.1 tons, of which 169.9 tons came from Belgium and 412 tons from Great Britain, while the exports were 3,014.2 tons, of which 150.8 tons went to Denmark, 745.2 tons to Great Britain, 399.3 tons to the Netherlands, 189.1 tons to Austria-Hungary, and 221.7 tons to Russia:

It is stated that competition of the large local factories is such that it would not be advisable to import American goods of this character, except manila twine.

MANNHEIM.

[By Consul Samuel Shank.]

While the greater part of the twine used here is of domestic manufacture, some is imported from Russia, the United States, and Italy. There is only one importer of American binder twine; purchases of this article from the United States are about one-third those from Russia. There is no prejudice against American products, and there is no reason why American twine should not be sold in as great quantities as Russian, if the prices and quality are right.

ITALY.

[By Consul General James A. Smith, Genoa.]

The Italian cordage and twine industry is favored by a protective duty, under which it has developed to the point of supplying nearly all of the home demand. Imports of foreign-made rope in 1907, 1908, and 1909 were valued at \$75,000, \$110,000, and \$60,000, respectively, most of which was manila rope imported from England. Twine imports during the same years amounted to \$20,000, \$27,000, and \$17,000, respectively. With the present high prices for English-made manila rope, the Italian mills are easily able to hold their own, and any reduction in price of the English rope would no doubt be promptly met. The foregoing refers to rope for consumption in the Kingdom, and the outlook for any increase in the market for foreign-made rope or twine is not favorable, unless the prices of the domestic product can be considerably underbid. Italian concerns are selling Italian hemp rope at \$19.30 to \$20.26 per quintal (220 pounds), delivered.

SALES OF ROPE IN LARGE PORTS.

There is, however, considerable demand for foreign rope in the large ports, especially Genoa. This is sold directly from the warehouses in the so-called "deposito franco," or free zone, and delivered to the navigation companies' steamers without entering the Kingdom, thus avoiding the payment of duty. Up to the present time the demand has been supplied almost entirely by the English rope manufacturers, but there are no figures upon which to base an estimate of the quantity sold. Italian consumers generally prefer rope made from Italian hemp. Some sisal is imported from India and made into rope by the Italian mills, but it being classified with other vegetable fibers, I am unable to state the extent of the trade.

There is no prejudice against American-made rope, in fact, it is well and favorably known among the navigation companies. The cost, however, is considered high. Rope of long and light-colored fiber and containing a minimum of oil is preferred. Transportation facilities between Genoa and New York are excellent.

One of the most prominent importers of foreign rope, who supplies many of the navigation companies direct from the "deposito franco," buys in the United Kingdom, from Belfast, Hull, and Edinburgh. The terms usually quoted are cash against documents for direct orders, or monthly payments on rope consigned and held in warehouses here awaiting sale. Three months' time is often quoted to good firms. This firm would be glad to handle American-made rope if prices are

right. Freight is paid by the manufacturer, and prices should be quoted c. i. f. Genoa, as is done by the English houses. Samples in duplicate and long enough to be properly examined should be sent. All depends upon the quality, prices, and terms, and the initiative of the American manufacturer. The manila rope most in use is from 1½ to 8 inches in circumference.

NETHERLANDS.

[By Consul General Soren Listoe, Rotterdam.]

Though the enormous shipping industry of the Netherlands consumes a great deal of cordage, local conditions preclude the introduction of much American-made rope. There are several large ropewalks in the country, and dealers, as they make sales, buy from these manufacturers, keeping little or no stock on hand. The manufacturers themselves are always dealers. The introduction of the American product would force dealers to lay in supplies, which would not be practical unless American exporters could quote prices so low that it would pay to invest in cordage rather than buy in small lots as needed.

Importations are made at present from Great Britain, Germany, and Belgium, usually on one to three months' credit. There is no prejudice against the American product, dealers taking only prices and profits into consideration. Rope is on the free list and the American exporter would have to compete with the local manufacturer and the manufacturers of surrounding countries, from all of which the freight rates to the Netherlands are much lower than from the United States.

The latest import statistics available are for 1908, and they show that Germany sent to this country 3,342,150 pounds, Hamburg 3,223,380 pounds, Great Britain 2,848,254 pounds, and Belgium 2,220,798 pounds.

As a rule, ship chandlers and other dealers in rope also handle twine. Binder twine is not used extensively in the country though large quantities of all sorts of fishlines, small lines, and string are sold, there being one establishment in Rotterdam making a specialty of this class of goods.

In an attempt to gain a foothold in this market samples of the twine offered should be sent and prices should be quoted f. o. b. New York, if a direct quotation for the goods landed in Rotterdam can not be made.

NORWAY.

CHRISTIANIA.

[By Consul General Henry Bordewich.]

The rope most commonly used in Norway is made of manila or Russian hemp, and the twine, used for fish nets, etc., is made from French, Russian, and Italian hemp. Twine of jute, flax, and cotton is also used in smaller quantities.

Imports of these goods are chiefly from Belgium and the United Kingdom and in 1908 were as follows: Linen and hemp twine, 1,049 tons; jute twine, 33 tons; rope yarn, 142 tons; rope, not tarred, 505 tons; rope, tarred, 84 tons; cords and lines, 54 tons. In addition,

about 40 tons of ready-made fish nets were imported. In the statistics given are not included twines and yarns except those which are used, principally at least, in the fisheries and shipping. Imports vary little from year to year.

There are several ropewalks in the country, the raw material for which is imported.

I believe there is a good opportunity in this locality for selling American twine and rope, especially the former. If American manufacturers can compete in price and quality with European competitors American goods should find a market in this country. Goods can be best handled by a local commission agent or broker representing the foreign manufacturer.

STAVANGER.

[From Consul P. Emerson Taylor.]

Practically all rope and twine used in this district is manufactured in Norway. There are small imports from England and Belgium and smaller quantities from Scotland. None is imported from the United States. The introduction of American rope and twine depends chiefly upon prices.

RUSSIA.

[By Consul General John H. Snodgrass, Moscow.]

Statistics for the three years ended in 1909 reveal a growth in the import trade in rope and twine, and from these figures and from facts gleaned in interviews with Russian dealers it would appear that this country presents a favorable field for foreign cordage, even though domestic competition is growing keener and the number of factories engaged in the production of cordage is yearly increasing.

In 1907 the total imports of cable, rope, string, binder twine, and fishing nets were valued at \$472,094, and in 1909 they had increased to \$665,895. The following table shows the imports and exports of both raw materials and finished products during 1907, 1908, and 1909:

Articles.	1907		1908		1909	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
IMPORTS.						
Jute, raw..... tons..	30,387	\$3,388,700	29,064	\$2,908,205	33,306	\$3,886,215
Flax..... do.....	629	59,740	516	46,350	629	71,070
Hemp:						
Manila..... do.....	451	33,990	338	13,905	367	16,995
Other..... do.....	323	22,145	193	15,965	177	16,995
Rope, string and twine... lbs..	3,485,500	190,960	2,880,000	115,360	6,588,000	448,565
Binder twine..... do.....	4,927,968	105,451	504,000	8,755	1,332,000	34,505
Fishing nets..... do.....	812,500	175,683	828,000	171,495	972,000	182,825
EXPORTS.						
Flax..... tons..	218,935	29,847,340	234,080	29,950,855	231,597	31,304,275
Flax tow..... do.....	37,081	3,664,225	38,048	3,661,135	39,323	3,687,915
Hemp..... do.....	50,887	6,714,055	47,597	6,199,570	40,951	5,433,765
Hemp tow..... do.....	11,129	878,590	14,548	1,035,665	12,581	968,200
Rope..... lbs..	1,080,000	96,305	720,000	62,830	918,000	87,035
String and twine..... do.....	756,000	52,530	468,000	35,535	586,800	39,655
Fishing nets..... do.....		6,180		4,120		2,060

SOURCE OF IMPORTS IN 1907.

The latest statistics available showing the origin of imports are for 1907, which are as follows:

Articles and countries.	Quantity.	Value.	Articles and countries.	Quantity.	Value.
ROPE, TWINE, ETC.			BINDER TWINE—continued.		
	<i>Pounds.</i>			<i>Pounds.</i>	
United States.....	491,472	\$17,126	All other countries.....	1,686,276	\$42,564
Austria-Hungary.....	148,212	8,567	Total.....	4,927,968	105,451
China.....	382,788	26,667	FISHING NETS.		
Germany.....	1,903,572	101,493	Austria-Hungary.....	90,792	18,250
Italy.....	105,516	5,596	Denmark.....	108,324	19,826
Japan.....	125,152	16,187	Germany.....	425,340	104,183
Turkey.....	50,364	4,014	Japan.....	45,612	3,263
United Kingdom.....	178,452	6,708	Norway.....	11,448	1,532
All other countries.....	99,972	4,602	Sweden.....	30,240	6,438
Total.....	3,485,500	190,960	Turkey.....	68,904	15,060
BINDER TWINE.			United Kingdom.....	22,644	2,920
United States.....	2,198,628	30,802	All other countries.....	9,196	4,211
Belgium.....	678,960	23,175	Total.....	812,500	175,683
Germany.....	328,572	7,622			
United Kingdom.....	35,532	1,288			

From the foregoing it will be seen that Germany led in the sale of rope, twine, etc., and of fishing nets, and that the United States furnished the largest amount of binder twine.

DOMESTIC PRODUCTION OF CORDAGE.

Excepting the United States and Argentina, Russia is the world's largest grower of flax and hemp and enjoys almost a complete monopoly of the European and near Asiatic markets. Consequently numerous factories have been erected throughout the Empire for the manufacture of the various products of these staples.

According to the latest Government statistics there are about 600,000 persons engaged in the cultivation and marketing of flax and hemp and in manufacturing products therefrom. In 1907 there were in flax 3,887,359 acres, which yielded 638,000 tons, and 2,001,036 acres of hemp, with an output of 125,752 tons, the total value of both being \$50,000,000. Timber and grain only take precedence of flax and hemp in the value of Russia's exports. In 1909 this country exported flax, flax tow, hemp, and hemp tow to the value of \$41,394,155. Exports of rope, twine, and fishing nets in the same year amounted to only \$128,750, the greater part of which went to the contiguous territory in Asia. Russia does not require foreign raw material for her factories, the imports of flax and hemp in 1909 being valued at only \$105,060, while, as previously stated, the imports of finished products amounted to \$665,895.

The latest official figures show that 414 factories, employing 32,000 laborers and with an annual output of 991,156,000 pounds of yarn, valued at \$36,050,000, are now working on hemp and flax. These establishments contain 367,690 spinning and 37,700 twisting spindles. In addition 12,380 linen looms are operated in Russia, of which 799 are hand and 11,581 power looms. There are also 2,400 special factories. The products of all these factories are rope, twine, sacks, yarn, hessians, tarpaulins, sackings, and twists. Including peasants engaged in the business at their homes, it is esti-

mated that 500,000 persons are identified with the manufacturing of flax and hemp products, with a yearly output worth \$400,000,000. There are 80 factories engaged in the manufacture of cordage, employing approximately 11,000 workmen and producing goods to the value of \$71,000,000 annually.

REQUIREMENTS OF THE MARKET—TRADE METHODS.

Most of the rope used in Russia is made from Russian hemp, with a considerable amount manufactured from Italian and manila hemp. Rope made of sisal, jute, and cotton is also on the market, but does not have the ready sale of the foregoing. Although Russian and Italian hemp twine are the most popular, there is a demand for twine manufactured from jute, flax, and cotton.

Cordage shipped to this country is quoted f. o. b. Moscow and in Russian currency, though various exporters are selling on different conditions. It is the rule, however, to ship free of freight and duty at Moscow, and American manufacturing firms should at least quote prices f. o. b. seaport cities.

As has been shown, Germany enjoys the best trade in these lines, with a fair business on the part of the United States, Austria-Hungary, China, and Japan. Credit is always extended in commercial circles in Russia, the general terms being from three to eight months, and sometimes it is extended to a year; but there are a few concerns in the cordage business that pay cash upon receipt of goods in Moscow.

Transportation facilities will not prevent importers from buying from American manufacturers, but a large stock should be kept here on consignment in order that the demands may be met at all times.

It is believed that by following closely the lines adopted by the Germans to secure the trade of Russia American manufacturers of cordage will be able to compete successfully and enlarge the comparatively small business that they have already secured. Unless, however, American exporters are willing to abide by the conditions and requirements of the country, any attempt to gain a stronger foothold here will not be successful.

SPAIN.

BARCELONA.

[By Vice Consul General William Dawson, jr.]

Careful consideration of local conditions and discussion with the principal dealers lead to the conclusion that there is little opportunity in this part of Spain for American rope and cordage.

The cordage industry is represented at Barcelona by four factories, and rope and twine are manufactured in other parts of Spain. Duties are high enough to afford Spanish concerns ample protection; in fact, a prominent manufacturer advises that with these duties foreign cordage can not compete with the home product.

All the usual varieties of cordage are manufactured here, the raw materials most commonly employed being manila hemp, cotton, hemp, coco fiber, and jute. Sisal is also used, although not so widely as in other countries. Manila hemp is probably the raw material most commonly used.

So far as this office has been able to ascertain, there are no firms at Barcelona handling imported cordage. Small amounts of rope and

twine are probably imported occasionally for special purposes, imports at Barcelona not amounting to more than \$5,000 or \$6,000 annually.

STATISTICS OF SPANISH CORDAGE MADE.

According to Spanish customhouse statistics for all Spain, practically no cotton cordage is imported into Spain, while imports of cordage of other fibers weighing from 5 to 50 grams per 10 meters were valued at \$36,540, \$42,120, and \$91,980 in 1907, 1908, and 1909, respectively, while imports of cordage weighing over 50 grams per 10 meters were valued at \$117,540, \$129,780, and \$123,480, respectively.

According to figures for 1908 (latest available) imports of light cordage (weighing less than 50 grams) from the United States amounted to about \$22,000, or over one-half the total imports. Cordage weighing over 50 grams is not imported from the United States. Over one-half of this grade comes from the United Kingdom, with smaller amounts from Austria, France, and Germany. Cordage is imported chiefly at Bilbao and in the southern part of Spain.

Spain exports a little over \$100,000 worth of cordage annually, principally to Cuba.

VALENCIA.

[By Consul Robert Frazer, jr.]

Valencia not only makes its own rope and twine, but also supplies neighboring sections and other coast cities with the surplus of its cordage. The ropes which are most in demand here and which constitute a special industry of this region are used principally for tying for export over 8,000,000 boxes of oranges, onions, and other fruit and vegetables raised on this coast. These ropes are made of esparto (Spanish grass), which grows on the mountain and desert wastes in the Provinces of Murcia, Albacete, Alicante, and Valencia. This rope is put up in bales of 72 ties or loops, which cost about \$3.20 per bale, supplying sufficient rope for tying 150 boxes of oranges weighing 95 kilos.

Twine and other cordage are also manufactured from native hemp mixed in different proportions with jute, manila hemp, agave, or ramie, according to the strength and durability required.

During 1909, 3,500 tons of raw jute were imported from British India and 2,500 tons of jute yarn from Belgium, England, France, and Germany, in addition to small imports of the other vegetable fibers named.

SWEDEN.

[By Vice Consul General Wilhelm Hartman, Gothenburg.]

The rope used in Sweden is chiefly hemp, manila, and coconut fiber, with a small quantity of cotton. Sisal is evidently not much used, unless it be sold under the name of manila. The largest quantities of hemp come probably from Russia and Prussia, with some from India, New Zealand, and Italy, but the statistics are rather unreliable as to the origin of imported goods. For binding twine, sail twine, fishlines, etc., Russian and Italian hemp are used, also flax and cotton. For cheap grades of binder twine jute is also used.

IMPORTS OF CORDAGE AND FIBERS.

According to the official statistics, the following quantities of cordage and fibers for the manufacture thereof were imported into Sweden in 1908:

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
Cordage:			Hemp tow.....	981,163	\$47,709
Rope yarn.....	794,916	\$72,474	Jute.....	10,689,911	441,828
Other—			Flax:		
Tarred.....	84,538	7,194	Uncombed—		
Not tarred.....	603,235	51,332	Russian.....	2,295,444	237,185
Sail twine and binder twine:			Other.....	693,768	96,987
Hemp or flax.....	264,553	44,706	Combed—		
Jute.....	26,065	2,315	Russian.....	64,975	11,058
Hemp:			Other.....	104,340	22,197
Uncombed—			Flax tow.....	1,432,987	104,519
Manila.....	852,307	56,985	Coconut fiber.....	26,495	1,127
New Zealand.....	140,185	10,225			
Other.....	5,055,150	307,259			
Combed—					
Manila.....	80,394	9,284			
New Zealand.....	105,646	12,843			

The fiber used in the manufacture of the rope and rope yarn imported is not specified in the statistics, but it is understood that manila rope and yarn are mostly imported.

The foregoing table shows to a certain extent the quantities of fiber needed by the Swedish factories, though, of course, jute and flax are used for other purposes than the manufacture of twine. In 1908 there were in Sweden 26 rope factories, with 455 workmen, and the estimated value of their production was \$660,151. Two of these factories are located in Gothenburg.

SOURCE OF IMPORTS—SHARE OF UNITED STATES.

According to the statistics, the imports of cordage were from the following countries, in the order named: Rope yarn, not specified, from the United States, Denmark, Great Britain, Germany, Finland, European Russia, Italy, Belgium, and Norway.

Other cordage, tarred, was imported from Belgium, European Russia, Germany, Finland, Great Britain, Norway, Denmark, and the United States; untarred rope from Germany, the United States, Great Britain, Denmark, Belgium, Holland, Norway, Italy, France, Ireland, European Russia, Finland, and Switzerland.

Sail twine and binder twine of hemp or flax, not colored, bleached, or printed, were imported from Germany, Italy, Belgium, Austria, Denmark, Great Britain, Norway, Finland, Switzerland, the United States and France, and Japan, and of jute from Great Britain, Denmark, Germany, Norway, and France.

Thus it can be seen that the United States led with reference to rope yarn and is in the second place with respect to untarred rope. There seems to be a market for American goods of this class, but whether or not the export to Sweden can be increased depends to a great deal upon prices, terms, and time of delivery.

TURKEY.**CONSTANTINOPLE.**

[By Deputy Consul General William Smith-Lyte.]

American cordage firms can enter this market if they can compete in price with other countries. Sales direct to dealers are not possible. An agent should be appointed, as is the practice with continental firms, and he will canvass the dealers and also keep the American exporter informed as to possible large orders for the admiralty. Of the rope and twine imported England furnishes about 65 per cent, Russia 10 per cent, Belgium 9 per cent, and Italy and Germany each about 8 per cent. From 800 to 1,000 tons are imported annually.

SALONIKI.

[By Consul George Horton.]

Saloniki purchases annually about 1,200,000 pounds of rope of ordinary kinds from Servia and Turkey itself, and about 90,000 pounds of heavy marine rope from Belgium. There are also sold annually in this market about 750,000 pounds of twine from Italy, Germany, Austria, and Belgium. The usual terms of payment are 30 to 90 days' time, or 3 per cent for cash. The name "American" produces a favorable impression here, and the importers of this city express a general desire to get into closer relations with the United States. If American manufacturers can furnish cordage equal in quality to that now selling here and at a lower price they can get the trade. Prices c. i. f. Saloniki range as follows: Ordinary rope, 10 to 12 cents per pound; heavy rope, 15 to 20 cents; twine, 12.7 to 13.5 cents.

UNITED KINGDOM.

[By Consul General John L. Griffiths, London.]

Manila rope is in very common use in England, and therefore much in demand; it is required in all sizes, also in 2, 3, and 4 ply cords, and in 6 and 9 thread lines. Sisal rope is in demand only when cheap and then mostly in 2, 3, 4, and 6 ply twist. Russian hemp is in good demand and is used largely by the Government; ropes of all sizes are used, as is also spun yarn in 2, 3, and 4 ply. The cotton rope consumed here is mostly of domestic manufacture and is not greatly in demand; it is used for driving ropes, and as small lines for boats. Jute rope is mostly of Scotch manufacture and is used in small sizes as packing cord and for baling purposes.

Jute twine is also mostly of Scotch manufacture and is in great demand for shop purposes in all the various sizes. American hemp is scarcely known here. One dealer when interviewed expressed a desire to see a sample of this kind of twine. Russian and Italian hemp are in good demand in all sizes. There is a fair demand for flax cordage, but it is not much used as a twine; fine qualities are employed for mattress work, while a cheap packing twine is made from the tow. Cotton twine is principally of English manufacture and is in good demand, especially by the tea trade. Indian hemp, tarred and untarred, is also used to some extent.

IMPORTS OF CORDAGE AND TWINE.

The following table, taken from the annual statement of the trade of the United Kingdom with foreign countries and British possessions, shows the imports of cordage, cables, ropes, and twines, of hemp, coir, or like material, in 1909:

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
	<i>Cwt.</i>			<i>Cwt.</i>	
Austria-Hungary.....	12, 146	\$112, 343	British India.....	9, 842	\$41, 930
Belgium.....	43, 351	372, 219	Canada.....	3, 238	26, 104
France.....	10, 632	100, 615	Ceylon and dependencies..	56	243
Germany.....	44, 593	418, 154	Other British possessions ..	659	3, 499
Italy.....	8, 811	93, 549			
Netherlands.....	13, 017	100, 522	Total.....	13, 795	71, 776
Russia.....	6, 751	50, 407			
United States.....	65, 380	417, 278	Grand total.....	221, 033	1, 758, 378
Other foreign countries....	2, 557	21, 515			
Total.....	207, 238	1, 686, 602			

There is no publication showing the source of cordage according to fiber, and no one, not even of those engaged in the business itself, will venture to give such an estimated classification. Manila rope, however, is made principally in this country; Bombay rope is imported from Belgium, and manila rope yarn from the Netherlands and Belgium.

EXPORTS OF DOMESTIC MANUFACTURES OF CORDAGE, ETC.

The following table shows the exports of cordage of domestic manufacture from the United Kingdom during 1909:

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
	<i>Cwt.</i>			<i>Cwt.</i>	
Argentina.....	45, 719	\$575, 371	Australia.....	32, 283	\$453, 412
Belgium.....	7, 482	71, 591	British India.....	13, 494	220, 336
Brazil.....	19, 918	188, 445	British West Indies.....	4, 005	55, 006
Chile.....	19, 857	174, 041	Canada.....	18, 733	212, 729
Denmark.....	9, 501	80, 156	Cape of Good Hope.....	17, 154	183, 516
Egypt.....	13, 004	105, 155	Natal.....	7, 030	85, 728
Germany.....	35, 578	308, 337	Newfoundland.....	3, 449	33, 073
Italy.....	5, 385	46, 300	New Zealand.....	12, 234	181, 949
Netherlands.....	5, 676	58, 344	Straits Settlements.....	3, 157	32, 357
Norway.....	6, 424	55, 979	Other British possessions ..	25, 546	297, 494
Peru.....	5, 606	53, 789			
Russia.....	12, 512	109, 701	Total.....	137, 085	1, 755, 600
Spain.....	8, 010	71, 937			
Sweden.....	2, 846	25, 914	Grand total.....	396, 821	4, 294, 015
Turkey.....	10, 549	86, 653			
United States.....	2, 057	27, 106			
Uruguay.....	6, 250	67, 829			
Other foreign countries....	43, 362	431, 767			
Total.....	259, 736	2, 538, 415			

TREND OF THE CORDAGE TRADE.

The following table, taken from the statistical abstract for the United Kingdom, gives the value of cordage, cable, rope, and twine imported into and exported from this country from 1900 to 1909, inclusive. It is interesting to note the gradual reduction in imports during this period and the increase in exports.

Years.	Imports.	Exports.	Years.	Imports.	Exports.
1900.....	\$5, 554, 282	\$2, 542, 556	1905.....	\$3, 497, 617	\$3, 392, 043
1901.....	4, 518, 565	2, 600, 930	1906.....	3, 383, 166	3, 836, 077
1902.....	4, 547, 696	2, 666, 195	1907.....	1 2, 320, 226	4, 363, 747
1903.....	3, 326, 520	3, 009, 998	1908.....	2, 152, 395	4, 026, 308
1904.....	3, 759, 099	3, 243, 654	1909.....	1, 758, 378	4, 294, 015

¹ Prior to 1907 coir yarn was included. Coir yarn 1907, \$1,384,485; 1908, \$1,332,224; 1909, \$1,411,275.

Most of the foreign rope and twine is purchased through local agents representing foreign dealers, but the importer will buy of the individual who sells cheapest, whether he be manufacturer or a commission agent. There is no prejudice in the cordage trade against American-made goods. The source of supply for the English market is determined entirely by considerations of price and quality. One dealer remarked "American goods have a high reputation wherever they have been known in this country. The sisal twines which used to come here were excellent."

In the main the importers are satisfied with the cordage they are now buying, but one merchant says that dealers will never be satisfied if they think there is a chance of buying more cheaply, but he adds, "The market is well served at present."

POSSIBILITY OF INCREASING AMERICAN SALES.

There is undoubtedly an opportunity in England for the sale of American-made cordage, but this opportunity depends entirely upon the price and the quality of the product offered. The foregoing table of imports shows that the amount of cordage imported from the United States into the United Kingdom is greater than that from any other country, but that the imports from Germany exceed in value those from the United States. It appears that American-made binder twine has a large share of the English market. As to whether other American-made goods can be sold in England one dealer said, "Yes, if they can compete against mills with up-to-date machinery, girls at about \$2.45 per week, men at about \$7.30 per week, and dumped twine from Austria and Germany."

Business in London is very much specialized, and in order to enter into successful competition one must accommodate himself to this feature. It appears therefore that perhaps the best way to enter the English market is to do so through a local agent who will give his attention to the particular product of the manufacturer.

ASIA.

CHINA.

[By Consul General George Anderson, Hongkong.]

The cordage trade of China is of an uncertain nature. On the whole, the imports have increased materially, showing that in spite of discouragements the sale of foreign-made rope is growing. Values have varied so greatly, however, that it is difficult to make a forecast of future business, for, as in cottons, food products, and many other staple articles, the Chinese are independent of the world, and when the price of foreign goods rises above that at which the Chinese can produce goods of the same sort or a substitute therefor, they simply stop buying foreign goods and use those of native production.

In 1907 the imports of cordage of all kinds into China amounted to 938,243 pounds, valued by the Imperial Maritime Customs at \$112,637, or 12 cents gold per pound; in 1908 the imports were 933,300 pounds, valued at \$79,103, or about 8.4 cents per pound; and in 1909, 1,177,689 pounds, valued at \$160,946, or 13.7 cents per pound. Figures for 1910 can not yet be had, but it is known that the trade was satisfactory in spite of local drawbacks.

SOURCES OF SUPPLY—CHARACTER OF ROPE IN DEMAND.

Of the cordage trade in China at present, Hongkong, mostly with its own product, supplies about 50 per cent. Great Britain furnishes about 16 per cent, Japan 10 per cent, and Germany 7 per cent. The United States in 1906 had about 12 per cent of the direct import trade, but in the past four years has averaged about 7 per cent, though some of the imports credited as from Hongkong were in reality American goods. It should be added, also, that the consumption of rope in Hongkong for shipping or refitting in the port is probably as great as all China's consumption of the foreign product, and the United States has a part, though small, of this business. Of the imports of cordage into China proper, about 57 per cent goes to Shanghai, 15 per cent to Tientsin, 12 per cent to Hankow, and less than 4 per cent each to all other ports.

The demand in China for high-priced, high-grade cordage is limited to foreign ships in the Chinese trade and to foreign enterprises accustomed to using foreign materials generally. The Chinese, both in their shipping or junk trade and in many lines of industry use enormous quantities of cordage of many varieties and grades, ranging in cost from 1.5 cents per pound up. Most of this cordage, however, is not well suited to the uses to which it is put. Possibly the great bamboo hawsers used to drag boats up the gorges of the Yangste have merits over hemp ropes, but for ordinary junk purposes the ropes used are cheap but exceedingly flimsy, and more than one serious accident in shipping and industry in the Far East has been due to such imperfect and unreliable materials. However, practical rope men in the East claim that the Chinese prefer their own rope. It is poor but it is cheap, and the natives know its peculiarities and can get along with it.

As opposed to this opinion of rope manufacturers, an importing firm dealing with Chinese shipping in other lines is of the opinion that something may be done in the cheap grades, such as a rope worth about 5 cents gold per pound in the Chinese market. This rope, according to local rope manufacturers, will come into competition with Chinese-made rope that can be bought for 3 to 4 cents local currency (1.32 to 1.76 cents gold) per pound.

HONGKONG ROPE FACTORY.

There is a large and flourishing rope factory in Hongkong owned by the Hongkong Rope Manufacturing Co. (Ltd.). It has been established for 27 years and is one of the standard industries of the colony. It is equipped with the latest and most improved American machinery, and as it saves freight on raw material to the extent represented by the difference between freight from the Philippines to Hongkong and from the Philippines to New York and also employs cheap and efficient Chinese labor, it has an immense advantage in this market. On the whole, it may be said to dominate the rope market of the Far East. The management of this firm states that for many years it has endeavored to provide a rope that would attract the trade of Chinese junk men, but in spite of the low cost of the product it manufactured and in spite of the fact that the flimsy nature of most Chinese rope makes its use in no sense economical, the efforts were without success.

Nevertheless, if foreign rope can be sold to the Chinese at a price which represents an actual saving to them in the long run, persistent effort will doubtless lead to a satisfactory trade.

TIENTSIN.

[By Consul General S. S. Knabenshue.]

This section grows jute, from which the natives make rope and cordage of all kinds, consequently there is no market whatever among Chinese for foreign rope or twine. So low is the wage rate among the Chinese that the imported article has no chance. A local firm representing an American manufacturer states that it finds it impossible to do business. The firm was asked to bid on a rather large order for manila rope and obtained a bid from an American firm by cable, but it was far above the price quoted by the successful bidder. Efforts have been made to create a market here for Dundee manufactures, but without success.

ANTUNG.

[By Consul E. Carleton Baker.]

Rope and twine are manufactured here to a great extent and the prices of the native product are so low that the foreign article can scarcely compete. The Japanese import a small quantity of rope and twine from Japan, Korea, and Dalny, but their goods have almost no sale among the Chinese on account of the cheapness of the native product.

JAPAN.

YOKOHAMA.

[By Consul General Thomas Sammons.]

The use of imported rope in Japan is very limited, twisted straw or straw rope being employed very extensively for all purposes except in connection with ships. This straw rope is used in all parts of Japan, and is employed instead of steel or wire bands for binding cases for export as well as for local shipping, for the tying together of scaffolding poles, and for all general purposes for which rope is needed.

Of imported rope, manila and sisal from San Francisco and Hongkong are in most common use, no Russian hemp or jute being imported. A small amount of cotton rope is made in Tokyo, but not in sufficient quantity to be worthy of consideration. On the other hand, a very large amount of cheap manila rope is manufactured, and this dominates the Japanese market. Manila fiber rope composes the largest importation, the sources being San Francisco and Hongkong. Sisal rope is imported from the Philippines and a little is made in Tokyo.

Of imported twine English flax and American cotton are the most important. Some American hemp twine is imported, but the amount is so small that it is not mentioned separately in the statistics. No Russian or Italian hemp or jute is imported.

AMERICAN GOODS TOO COSTLY FOR MARKET.

There is absolutely no prejudice against American goods, and they are preferred, but owing to the present market conditions, high freight rates, etc., it does not pay the importer to deal largely in this class of goods. The market at present is not encouraging; there is too much cheap rope made in Japan. The Japanese buy twice rather than pay the higher price.

There is a large export market for Japanese-made manila and sisal rope, the most going to South America and northern China.

The importation of raw cotton into Japan is very large and much cheap cotton twine is manufactured at Osaka and Tokyo.

The Japanese in tying up an ordinary package use a cloth called "furoshiki" folded over the goods with the corners tied in a knot, or a cheaply made cotton tape. Twine is more often found in the stores catering to foreign trade, thus not generally being used outside of large commercial centers.

KOBE.

[From Consul David F. Wilber.]

The following table shows the imports of rope and twine into Japan in 1909, by articles and by countries:

Articles and countries.	Quantity.	Value.	Articles and countries.	Quantity.	Value.
Twine:			Rope:		
Jute—	<i>Pounds.</i>		Manila hemp—	<i>Pounds.</i>	
China.....	7,954	\$348	America.....	1,589	\$325
India.....	840	61	China.....	23,442	2,420
England.....	1,340	223	Norway.....	6,033	916
Hemp—			Germany.....	6,352	1,711
China.....	2,427	133	India.....	46,196	4,311
England.....	4,452	914	Hemp—		
America.....	5	1	Norway.....	6,197	1,295
			China.....	19,761	1,450
			Germany.....	4,534	860

KOREA.

[By Vice Consul General Ozro C. Gould, Seoul.]

Foreign-made rope has only a limited market in Korea, Japanese and native-made straw rope serving most of the purposes for which rope is used. In the first six months of 1910, 2,527,700 pounds of straw rope, valued at \$50,402, were entered, principally from Japan, and all other cordage imported amounted to only 65,300 pounds, valued at \$9,898. From these figures the value of the straw rope per pound appears to be but two-fifteenths of other cordage; and the item of cost is very important to native and Japanese consumers. There is a large native production of straw rope.

The demand for foreign rope is principally from mining companies, most of which are American concerns, and occasionally from German, English, or Japanese vessels calling at Korean ports, and is practically limited to manila rope. The demand is so small and irregular that the importers prefer to buy from wholesale houses in Japan or China, which carry a good stock.

INDIA.

KARACHI.

[By Consul Stuart K. Lupton.]

Manila rope is imported into this district almost entirely from the United Kingdom; a small quantity of cotton rope is bought, but the bulk of the business is in jute, both rope and twine, brought in from Calcutta. The imports of manila rope during the fiscal year 1909 amounted to 450 tons, of which the United Kingdom furnished 446 tons. During the same period the imports of jute rope were 6,768 tons. The only prejudice against American goods is that regulations for Government contracts, which embrace a large portion of the imports, require British-made goods if possible. Importers

would doubtless buy American goods if they could get better prices and terms than from other countries. Although through freight rates are about the same, transportation facilities from America are not so good as from other countries, as sailings from America to Karachi are infrequent.

RANGOON.

[By Consul Maxwell K. Moorhead.]

Manila, coir, jute, and cotton rope, and jute, Italian hemp, and cotton twine are in use here. Purchases are made from India, China, and Europe, importers preferring to buy direct from manufacturers. The total imports of rope and twine during the year ended March 31, 1910, were valued at \$446,925, of which the United States furnished \$45,397. A large amount of rope is imported from the United States for use in oil-drilling operations.

SIAM.

[By Consul General G. Cornell Tarler, Bangkok.]

The imports of cordage, rope, cable, and twine, other than wire rope, into Siam during the fiscal year ended March 31, 1910, were valued at \$95,609. Manila, cotton, and coconut rope are in use, but imports of twine are small. Purchases are made chiefly from Hongkong and Singapore. The price of manila rope is 35 to 55 ticals, cotton 10 to 35 ticals, and coconut 20 to 25 ticals per picul (tical=37 cents, picul=133½ pounds). These prices are free of freight, but include an ad valorem duty of 3 per cent.

Importers prefer to buy through export commission houses. Owing to their transportation facilities, which allow quicker delivery, Singapore and Hongkong have a distinct advantage in the trade, and as importers are satisfied with the cordage they are now buying, there is no demand for American-made rope and twine.

BRITISH NORTH BORNEO.

[By Consul Orlando H. Baker, Sandakan.]

Purchases of manila and coir rope and twine are now made principally from the Straits Settlements, Philippine Islands, and India, and freight rates on American goods would probably prevent their importation. No statistics of imports are available.

STRAITS SETTLEMENTS.

[By Consul General James T. DuBois, Singapore.]

The principal import of cordage is oiled manila rope, purchased in England, India, Hongkong, and America. The chief drawback to imports from the United States is the time required for delivery. The imports of manila cordage in 1909 were valued at \$101,112, of which the United States furnished \$1,363.

JAVA.

[By Consul B. S. Rairden, Batavia.]

Native-made jute rope is in common use in Java. The small amount of manila rope used is imported from the Philippines. The market for cordage and twine, in general, is poor. Statistics of imports are not available.

TURKEY IN ASIA.

[By Consul General Ernest L. Harris, Smyrna.]

The imports of manila and sisal rope into Smyrna are valued at about \$50,000 annually. Purchases are made from the United Kingdom, Belgium, Italy, and the United States. Freights from the first three countries named are lower and favor their trade. There are also more frequent sailings and less delay in transit. Importers are paying from \$8.50 to \$10.95 per hundredweight for manila rope and \$8 to \$8.50 for sisal, c. i. f. Smyrna.

OCEANIA.

AUSTRALIA.

[By Vice Consul General Henry D. Baker, Sydney.]

Rope and twine are extensively used in Australia, but at present the market is practically monopolized by local, New Zealand, and British manufacturers. The imports of metal cordage, rope, and twine have been much larger than the imports of such products made of fiber, owing to the fact that wire products are much used for mining purposes, for hauling timber and heavy loads, etc. As there is no duty on rope and twine made of metal, while there is a duty on cordage and twine made from vegetable fiber, there is naturally a better opportunity here for sale of American wire rope and twine than for vegetable fiber products, which well-protected local manufacturers are perhaps able to sell to the best advantage.

IMPORTS OF METAL AND FIBER CORDAGE AND TWINE.

In 1909 the imports of metal cordage, rope, and twine into the Commonwealth amounted to 48,116 hundredweight, valued at \$409,097, of which the United Kingdom furnished \$392,687, the United States \$12,195, Germany \$3,309, and other countries, including New Zealand and Belgium, the remainder. The total imports of reaper and binder twine during the same year were 22,114 hundredweight, valued at \$251,126, of which New Zealand furnished \$84,326, the United Kingdom \$136,953, and the United States \$25,150, the remainder coming from other countries.

An important use of cordage and twine in Australia is for nets and netting for fishing and rabbit trapping, for fishhooks, and floats for fishing nets. When proof is offered that they are used for such purposes they are subject to a duty of 5 per cent instead of 25 per cent. The imports in 1909 of cordage for such purposes were valued at \$59,838, most of which was furnished by the United Kingdom, the United States furnishing only \$141 worth. The imports of cordage, rope, and twine for other purposes than those already mentioned amounted in 1909 to \$469,559, of which the United Kingdom furnished \$425,001, India \$10,628, the United States \$12,648, Germany \$8,054, Austria-Hungary \$3,212, and other countries \$10,016.

The materials for fiber rope and twine are imported chiefly from Manila, New Zealand, Russia, Italy, and Ireland, but, as already stated, the goods in their manufactured form, besides being made locally at factories in Melbourne, Adelaide, and Sydney, are imported mostly from the United Kingdom and New Zealand. As a rule importers prefer to buy direct from manufacturers, and if quality

and price are satisfactory would as soon buy from the United States as elsewhere. However, the tariff preference in favor of the United Kingdom gives British manufacturers an advantage.

BOUNTIES FOR PRODUCTION OF HEMP AND FLAX.

The government of the Commonwealth in an endeavor to encourage the production of hemp and flax in Australia for export in the raw state as well as for use in local manufacture of cordage, pays bounties for such purposes, but out of £24,000 (\$116,796) available for such purposes, since the Bounties Act went into effect in 1907, only £246 has so far been claimed and awarded. Some experiments have been made in Queensland in sisal hemp production, which indicate that in the future this may become an important industry. This will depend chiefly on its relative profitableness as compared with sugar growing in the same districts. Where the experiment has been tried recently the profit has been from \$34 to \$45 per acre, independent of the bonus given by the government. The decorticating machinery used in this experiment was of American make.

One of the most important uses of twine in Australia has been for stitching bales of wool, but owing to complaints from buyers that fibrous material from twine became mixed with the wool, improved methods of gripping and packing the wool in bales are now being tried, with a great saving in twine as a result, as nine bales can now be treated with about the same quantity of twine as was formerly used on one bale. Twine, especially Russian hemp, is also much used in Australia for stitching grain bags, the wheat crop of the country being shipped in bags instead of in bulk as in most other countries.

NEW ZEALAND.

[By Vice Consul General L. A. Bachelder, Auckland.]

The total imports of cordage into New Zealand in 1909 amounted to 4,264 hundredweight, valued at \$67,522. The demand for rope other than that of domestic manufacture is very limited on account of the high cost as compared with the home products. New Zealand grows large quantities of flax and has raw material for its factories. Of the cordage imported in 1909, 3,917 hundredweight came from the United Kingdom and only 90 hundredweight from the United States. The cordage imported consisted principally of small sizes, such as sash cord and picture cord and hemp stuff suitable for ratlines and for use in sail making. The tariff favors home production, and in the import trade gives a preference to the United Kingdom.

SOCIETY ISLANDS.

[By Consul North Winship, Tahiti.]

Manila rope is most commonly used in the Society Islands, and while some Russian hemp is also used, there is no demand for jute, sisal, or cotton. Only cotton and American hemp twine are used. The annual imports of rope are about as follows: Manila, 166,000 pounds; spun yarn, marline, and rounding, 11,000 pounds; hemp sack twine, 2,500 pounds; cotton fishline, 26,000 pounds. Practically all of this comes from the United States, with which there are good transportation facilities. Most of the buying is done through commission houses, and usually a credit of 90 days is extended.

AFRICA.**ALGERIA.**

[By Consul Albert W. Robert, Algiers.]

France practically controls the rope and twine trade in Algeria. In 1909 France furnished 1,423 of 1,475 tons of rope imported and 304 of 315 tons of twine. The dominance of the trade by France is due to the absence of duties on imports from that country. Moreover, transportation facilities favor France. Twine importations are confined to branch houses of French manufacturing firms. No prejudice exists against American rope, which is preferred whenever price permits.

EGYPT.

[By Vice Consul General Edward Bell, Cairo.]

Imports of rope into Egypt are valued at about \$1,000,000 annually. Purchases are made chiefly from Italy and Germany. Importers prefer to buy from manufacturers represented by an import commission agent in Egypt. While buyers are satisfied with the goods now handled, they would give preference to American goods if of equal quality and lower in price. Freight rates favor both Germany and Italy, particularly the latter. Sales of American goods will depend entirely on the ability of American goods to compete with those from Italy in quality and price.

MADAGASCAR.

[By Consul James G. Carter, Tamatave.]

Oiled manila and hemp rope and jute twine are in common use in this country and are purchased through export commission houses in France. The latter country enjoys a tariff preference and better transportation facilities than other countries. No separate customs statistics are kept of the amount of the different kinds of rope and twine imported. The average purchaser or seller of rope and twine in Madagascar either is French or represents some French house, and naturally gives preference to goods coming from France unless very strong inducements are offered from another country.

PORTUGUESE EAST AFRICA.

[By Consul George A. Chamberlain, Lourenco Marquez.]

Manila rope is in good demand in Portuguese East Africa, but very little cotton rope is used. The principal buying market is the United Kingdom. Large purchases are usually made direct from the manufacturer, and smaller ones through commission houses. There is no prejudice against American goods, and if the quality is better and prices favorable, orders are likely to go to the United States. Separate import statistics for rope and twine are not available. As a basis for calculation it may be stated that the largest importing firm purchases about 30 tons of manila rope, 6 tons of coir, and smaller quantities of rope yarn, marline, fishing line, etc., annually. Manila rope is quoted at \$7.30 per hundredweight and coir at \$5.11 f. o. b. British ports, and seaming twine at 6 cents per pound.

SOUTH AFRICA.

CAPE COLONY.

[By Vice Consul General George L. Foster, Cape Town.]

Manila and sisal rope are both handled in South Africa, but the bulk of the trade is in mixed manila, for which the importer pays, in the case of American-made rope, \$6.20 per 100 pounds f. o. b. New York. Jute, Italian hemp, flax, and cotton twine are said to be sold in this market. In 1909 cordage and rope, not including wire rope, was imported into British South Africa to the value of \$172,756, of which \$163,664 came from the United Kingdom, \$5,032 from the United States, and the remainder principally from India, Germany, and Norway.

The terms of payment are usually draft with bill of lading either at sight or up to 120 days dating. It is usual for the importers to buy through an American commission house or a London house with whom they make such terms as can be agreed upon. The tendency now is toward importing direct from the manufacturers, which is being encouraged by American firms. The shipper prepays all freight charges, which are added to the amount of the invoices rendered to the importer. Prices are usually quoted f. o. b. American port.

There is apparently no obstacle in the way of American manufacturers increasing their business in this country if they can compete in quality and price with manufacturers in other countries.

NATAL.

[By Consul Edwin S. Cunningham, Durban.]

There is a considerable demand at this port for manila rope, which is required by vessels calling here, and also a demand for tarred Russian hemp, jute, and flax seaming twine.

Cordage and rope were imported in 1909 to the amount of 5,211 hundredweight, valued at \$49,262, of which the United Kingdom supplied 4,875 hundredweight, valued at \$46,304; India, 178 hundredweight, valued at \$822; United States, 85 hundredweight, valued at \$652; Norway, 44 hundredweight, valued at \$1,183; Germany, 23 hundredweight, valued at \$243, and all other countries, 6 hundredweight, valued at \$58.

A diversity of opinion was expressed by importers as to the best method of buying, whether from the manufacturer direct or through a commission house. It would seem best therefore to interest the importer and leave to him to determine whether the order shall be placed with the manufacturer direct or through a commission house.

There is no reason why this district should not present reasonable prospects for the sale of limited quantities of American rope. The freight rate from New York to this port is the same as from Europe on this article. Many vessels plying between the East and the United States call at Durban for bunkers, and they are accustomed to the brighter and much lighter-colored manila rope and prefer it, if for no other reason, to the British-made article. One firm stated that it would consider the importation of American manila rope if the prices were satisfactory. This firm is now paying 7 cents, less 2½ per cent, per pound for pure manila English-made rope.

FOREIGN TARIFFS.

The following statement of the rates of duty on cordage, which is based principally on data supplied by consuls, does not cover all foreign countries. These notes have been verified and arranged by the Division of Foreign Tariffs of the Bureau of Manufacturers. Information regarding the rates in countries not given in the statement will be supplied by this bureau upon request.

In all the countries mentioned in this statement, except France, cordage imported from the United States is subject to the same rates of duty as cordage from any other foreign country. In some of the foreign colonial possessions, imports from the mother country are admitted either free of customs duty, as in the French colonies, or at preferential rates, as in the British colonies. The United Kingdom and the Netherlands admit cordage free of duty. In some other countries cordage imported for certain purposes, such as rigging of ships or for binders, is admitted either free of duty or at reduced rates.

Owing to the similar tariff systems in the various British and French colonies, the treatment of these groups follows that of the mother country, irrespective of continent.

Equivalents of foreign weights and measures are generally stated in the text. The kilo is equal to 2.2046 pounds and the meter to 39.37 inches.

NORTH AMERICA.

DOMINICAN REPUBLIC.

The following table gives the rates of import duty on ropes and twines in the Dominican Republic:

Packthread, whipcord, and wrapping twine of cotton, or any cotton cord or string, twisted or not, weighing over 50 grams per 100 meters....	kilo net..	\$0.15
Cotton rope and cordage.....	100 kilos gross..	12.00
Yarns, twines, rope, cords, twisted of two or more ends, of flax, hemp, ramie, or other vegetable fibers, not elsewhere provided for:		
(a) Weighing up to 30 grams per 100 meters.....	kilo net..	.50
(b) Weighing over 30 grams, but not more than 250 grams, per 100 meters.....	kilo net..	.25
(c) Weighing over 250 grams per 100 meters.....	kilo gross..	.12

HONDURAS.

Cordage to be used on ships is dutiable in Honduras at about 0.7 cent per pound. Hemp cordage not more than one-fourth inch in diameter is dutiable at about 1.8 cents per pound. Hemp cordage of a greater diameter is dutiable at 3.5 cents per pound. The duty on both cotton twine and hemp twine is 7 cents per pound. Manila rope is dutiable at 0.7 cent per pound.

MEXICO.

Under the Mexican tariff, rope of cotton, aloe, hemp, and similar fibers, measuring 3 or more centimeters in diameter, is dutiable at 9 centavos per kilo (2 cents per pound). Cordage and twine of hemp, jute, aloe, and similar vegetable fibers, except cotton and linen, not exceeding 1 centimeter in diameter, is dutiable at 14 centavos per kilo (3.2 cents per pound); similar cordage measuring from 1 to 3 centimeters in diameter is dutiable at 9 centavos per kilo (2 cents per pound).

PANAMA.

Cordage and twines of all kinds, upon importation into Panama, are subject to an *ad valorem* duty of 12½ per cent.

SOUTH AMERICA.**BRAZIL.**

The Brazilian duty on ropes of all kinds is about 14 cents per pound; on plain twine, 24 cents per pound; and on colored and fancy twine, 33 cents per pound.

CHILE.

In the Chilean tariff cordage measuring more than 30 millimeters in circumference, tarred or not, is dutiable at 0.15 peso per kilo, or about 2.5 cents per pound. Plain twine pays 0.35 peso per kilo, or 5.8 cents per pound. Tarred twine is dutiable at 0.28 peso per kilo, or 4.6 cents per pound.

ECUADOR.

Manila and sisal ropes are dutiable at 5 centavos (2.4 cents) per kilo in Ecuador. Twines are dutiable at 10 centavos (4.9 cents) per kilo. In addition there are surtaxes amounting to 110 per cent of the duty.

PARAGUAY.

Cordage and twines imported into Paraguay are subject to a duty of 35 per cent *ad valorem*, based on fixed valuations, which are as follows per pound: For cotton twine, 19.7 cents; for binder twine, 8.7 cents; and for tarred twine, 17.5 cents. All other twines have a valuation of 15.3 cents for tariff purposes. The valuation for jute rope is 7.9 cents, for hemp rope 13.1 cents, and for ropes of other materials 10.9 cents. A surtax of 4 per cent is to be added to the duty.

URUGUAY.

In Uruguay the duty on tarred, manila, white hemp, and similar rope is 0.06 peso per kilo (2.8 cents per pound). The duty on binder twine is about 2 cents per pound. Cotton and hemp twines are dutiable at 0.30 peso per kilo (14 cents per pound) for cotton twine, and 0.20 peso per kilo (9.2 cents per pound) for hemp twine.

VENEZUELA.

The customs duties on ropes and twines imported into Venezuela are as follows: Ropes of all fibers except cotton, 2.2 cents per pound; twine of all fibers, 6.6 cents per pound; hemp ropes and lines for use in fishing, 6.6 cents per pound. There are surtaxes amounting to 56.5 per cent of the duty.

EUROPE.

AUSTRIA-HUNGARY.

The duties imposed by Austria-Hungary on cordage are as follows:

[Crown=20.3 cents.]

Articles.	Rates of duty in crowns per 100 kilos.	
	General.	Conventional.
Cordage:		
Ropes, cables, and cords, 5 mm. or more in diameter, bleached or tarred or not.	18	12
Round rope, 3 cm. or more in diameter, bleached or tarred or not.		15
Other ropes, cables, and cords, 5 mm. or more in diameter, bleached or tarred or not.		
Cord less than 5 mm. in diameter, and twine:		
Not prepared for retail sale.	43	
Prepared for retail sale (in hanks, etc.), more than 1 mm. in diameter.	48	43
Prepared for retail sale, 1 mm. in diameter or less.	83	

Imports from the United States are admitted at the conventional rates.

FRANCE AND FRENCH COLONIES.

The duty in France, in Algeria, and in such of the French colonies as are subject to the French tariff,¹ is given in the following table:

Tariff No.	Articles.	Rates of duty in francs per 100 kilos.		Rates of duty in dollars per 100 pounds.	
		General tariff.	Minimum tariff.	General tariff.	Minimum tariff.
367	Glazed yarns, twine, cordage, of hemp, linen, ramie, jute, New Zealand flax, manila hemp, or other vegetable fibers not specified, pure or mixed: Twine or glazed yarns, single or single-twisted, measuring to the kilo— Unbleached— In skeins— 200 meters or less..... More than 200 but not exceeding 500 meters..... More than 500 but not exceeding 1,000 meters..... More than 1,000 but not exceeding 2,000 meters..... More than 2,000 but not exceeding 4,000 meters..... More than 4,000 meters: <i>Dutiable as twisted yarn [according to kind of fiber].</i> In balls: <i>Rates applicable to that in skeins, increased 20 per cent.</i> Bleached or dyed— In skeins: <i>Rates applicable to unbleached in skeins, increased 30 per cent.</i> In balls: <i>Rates applicable to unbleached twine in balls, increased 25 per cent.</i> Cordage of double-twisted yarn, and cables, glazed or not, tarred or not, of a diameter of— 10 mm. or less— Unbleached: <i>Rates applicable to unbleached twine in skeins, increased 35 per cent.</i> Bleached or dyed: <i>Rates applicable to cordage of unbleached twisted yarn, increased 30 per cent.</i> More than 10 mm.— Unbleached..... Bleached or dyed.....	38.00 45.00 52.00 60.00 74.00	25.00 30.00 35.00 40.00 45.00	3.33 3.94 4.56 5.25 6.47	2.19 2.63 3.06 3.50 3.94
		30.00 39.00	20.00 26.00	2.63 3.42	1.75 2.29

¹ See Customs Tariff of France (published by the Bureau of Manufactures as Tariff Series No. 25), pp. 11, 15, 113-114.

The rates in the general column apply to the products of the United States.

Guadeloupe.—Cordage imported from France and other French colonies is admitted free of duty, while cordage from foreign countries is subject to the rates of the French tariff. In addition to the import duty cordage is subject to the following octroi de mer, which applies to imports from all countries, including France and the other French colonies: Tarred cordage, 7 francs per 100 kilos (61.3 cents per 100 pounds); other cordage, 10 francs per 100 kilos (87.5 cents per 100 pounds); twine of all kinds, including fishing lines, 12 francs per 100 kilos (\$1.05 per 100 pounds).

French Oceania.—Cordage of all kinds and dimensions imported into the French Settlements in Oceania (not including New Caledonia) is dutiable at 10 francs per 100 kilos (87.5 cents per 100 pounds), besides paying an octroi de mer of 13 francs per 100 kilos (\$1.14 per 100 pounds). Cotton fish lines pay an octroi of 20 francs (\$1.75 per 100 pounds) and hemp fish lines 30 francs per 100 kilos (\$2.625 per 100 pounds). Imports from France and French colonies are exempt from import duties, but not from the octroi de mer.

St. Pierre Island.—Cotton lines are subject to a duty of 3 francs per 100 kilos, or 26.3 cents per 100 pounds, when imported into St. Pierre. All other cordage is dutiable under the rates of the tariff of France. There is in addition a very slight statistical surtax.

GERMANY.

Cotton rope, string, cord, and twine more than 1 millimeter in thickness are dutiable in Germany at 40 marks per 100 kilos (\$4.32 per 100 pounds). Cordage of all kinds made of hemp, jute, ramie, etc., 5 millimeters or more in diameter, is dutiable at 10 marks per 100 kilos (\$1.08 per 100 pounds); the same, measuring from 1 to 5 millimeters in diameter, is dutiable at 24 marks per 100 kilos (\$2.59 per 100 pounds) in the general tariff and at 22 marks per 100 kilos (\$2.38 per 100 pounds) in the conventional tariff. Imports from the United States are admitted at the conventional rates.

ITALY.

Cordage of hemp, flax, jute, etc., more than 2 millimeters in thickness, is dutiable in Italy at 14 lire per 100 kilos (\$1.23 per 100 pounds). Cordage of the same materials, 2 millimeters or less in thickness, is dutiable at 25 lire per 100 kilos (\$2.19 per 100 pounds).

NORWAY.

In Norway twine is rated for import duty according to thickness and material; linen and hemp twine pay from 6 to 9 øre per kilo (73 cents to \$1.09 per 100 pounds). Rope pays 7 øre if untarred, and 6 øre per kilo if tarred (85 and 73 cents, respectively, per 100 pounds).

RUSSIA.

Cables, rope, and twine of jute, hemp, flax, and other vegetable fibers, except cotton, are dutiable under the Russian tariff at \$1.50 per 100 pounds. Binder twine of manila hemp, when imported with the binder, is admitted free of duty in amounts up to 1,083 pounds for each binder. This provision for the free admission of binder twine is to remain in effect until April 14, 1912. Cables, ropes, and cords of cotton are dutiable at \$15.69 per 100 pounds when unbleached.

SPAIN.

Cordage of hemp, linen, jute, and other vegetable fibers, weighing from 5 to 50 grams per 10 meters, is in Spain dutiable at 30 pesetas per 100 kilos (\$2.63 per 100 pounds). Cordage weighing over 50 grams per 10 meters is dutiable at 20 pesetas per 100 kilos (\$1.75 per 100 pounds). Cotton cordage is dutiable at 25 pesetas per 100 kilos (\$2.19 per 100 pounds).

TURKEY.

Cordage and twine of all kinds are dutiable at 11 per cent ad valorem on importation into Turkey.

UNITED KINGDOM AND BRITISH COLONIES.

The United Kingdom admits cordage free of duty. Ad valorem duties prevail in most of the British colonies. All kinds of rope, cord, and twine pay 5 per cent in British India. In British Honduras the duty is 12½ per cent ad valorem. In British North Borneo twines pay 10 per cent and cords and ropes pay 5 per cent. In the Straits Settlements there is no duty on any kind of cordage.

Australia.—In Australia minor articles of cordage for use in the manufacture of fishing nets, such as seine twine, etc., are admitted free, provided security is given by the owners that the twines will be used for fishing nets only, and that evidence of such use shall be given later. Reaper and binder twine pay 5 shillings (\$1.22) per hundred-weight of 112 pounds. All other cordage and twine, including manufactures, excepting tennis nets, pay 25 per cent ad valorem.

Canada.—Imports from the United States into Canada are dutiable under the general tariff. The British preferential rates apply to imports from most of the British possessions as well as from Great Britain. N. o. p. means "not otherwise provided for" in the tariff.

Articles.	British preferential tariff.	Intermediate tariff. ¹	General tariff.
Binder twine or twine for harvest binders.....	Free.....	Free.....	Free.
Sail twine and canvas, of hemp or flax, when to be used for boats' and ships' sails.....	<i>Ad valorem.</i> 5 per cent.....	<i>Ad valorem.</i> 5 per cent.....	<i>Ad valorem.</i> 5 per cent.
Twine and cordage of all kinds, n. o. p.....	20 per cent....	22½ per cent....	25 per cent.
Bank, cod, pollack, and mackerel fish lines; and mackerel, herring, salmon, seal, seine, mullet, net and trawl twine in hanks or coil, barked or not, in variety of sizes and threads, including gilling thread in balls, and head ropes for fishing nets; manila rope, not exceeding 1½ inches in circumference, for holding traps in the lobster fishery; barked marline, and net norsels of cotton, hemp, or flax; and fishing nets or seines, when used exclusively for the fisheries, not to include hooks, lines, or nets commonly used for sportsmen's purposes.....	Free.....	Free.....	Free.

¹ The intermediate tariff rates on cordage are not in force.

Newfoundland.—Cordage is subject to a tax of 1½ cents per pound. Twines for sailmaking, including hemp roping and seaming, and cotton sail twine and all other twines not otherwise specified are dutiable at 30 per cent ad valorem. Plaited clothes lines, window cords, and the like are dutiable at 40 per cent ad valorem. Marline for making lobster pots is dutiable at 10 per cent ad valorem.

New Zealand.—Hawsers of 12 inches and over, net-makers' cotton twine, worsted-covered blind cord, and solid glace-covered cord for Venetian and other blinds, also seine fishing nets, are admitted free of duty. Binder twine is admitted free, if the produce of some part

of the British Dominions; otherwise it is subject to an ad valorem duty of 10 per cent. All other cordage, rope, and twine are dutiable at 20 per cent ad valorem if the produce of the British dominions, and 30 per cent if the produce of any foreign country.

Union of South Africa.—All rope and twine imported into the Union of South Africa, which embraces Natal, Cape of Good Hope, Transvaal, and Orange River Colony, are liable to a duty of 15 per cent ad valorem, except 4-strand manila driving rope and seaming twines, which pay a duty of 3 per cent ad valorem. When these articles are imported from the United Kingdom, or a reciprocating British colony, a rebate of 3 per cent ad valorem is granted.

ASIA.

CHINA.

Cordage and twine of all kinds are subject to an import duty of 5 per cent ad valorem under the customs tariff of China.

DUTCH EAST INDIES.

Cables, ropes, and cordage of all sorts to be used in the rigging of ships or in fishing are admitted into the Dutch East Indies free of duty. Cordage for other uses is dutiable at 6 per cent ad valorem.

JAPAN.

Cordage and twine, not over 5 millimeters in diameter, are dutiable in Japan at 12.90 yen per 100 kin (\$4.86 per 100 pounds) when of cotton, and at 5.90 yen per 100 kin (\$2.22 per 100 pounds) when of other materials. Cordage exceeding 5 millimeters in diameter is dutiable at 6.25 yen per 100 kin (\$2.35 per 100 pounds).

Korea.—Twine is dutiable at 5 per cent ad valorem; other cordage and rope are dutiable at 7½ per cent ad valorem.

SIAM.

All kinds of ropes and twines are dutiable in Siam at 3 per cent ad valorem.

AFRICA.

EGYPT.

Cordage and twines pay an ad valorem tax of 8 per cent upon importation into Egypt.



