C18.5/2:13d

## SUPPLEMENT TO

# COMMERCE REPORTS



DAILY CONSULAR AND TRADE REPORTS

ISSUED BY THE BUREAU OF FOREIGN AND DOMESTIC COMMERCE
DEPARTMENT OF COMMERCE, WASHINGTON, D. C.



Annual Series

No. 13d

October 20, 1915

## RUSSIA.

#### BATUM.

By Consul F. Willoughby Smith.

The consular district of Batum includes Transcaucasia and Ciscaucasia, covering an area of 180,603 square miles with a population of over 12,000,000. It shares with India the first rank in the world's production of manganese and ranks next to the United States in the production of mineral oil. Its copper industry is in its infancy, yet its production in 1913 amounted to 10,005 tons. The country is rich in sulphur, asbestos, asphalt, coal, and lead, and is reported to have extensive deposits of mercury. Its average crop of cereals exceeds the combined crops of western and eastern Siberia. The vast forests of this district have as yet remained unexploited. The annual value of the fishing industry of the Caspian Sea and the Caucasian rivers is estimated at over \$20,000,000, not counting the 1,546 fisheries in the Kuban Cossack region, which produce annually an average of 299,713 pounds of red fish varieties, 5,055,400 pounds of white fish varieties, 31,054,600 pounds of herrings, and 252,770 pounds of caviar. The country also produces for export abroad and to the interior of Russia wool, silk, tobacco, hides and skins, licorice root, fruit, wine, tea, and many other raw products.

#### Principal Trade Centers of the Caucasus.

The district is almost entirely dependent for its manufactured goods on Central Russia and foreign countries. The principal trade centers and their population are as follows:

Tiffic	350 000	Kars	35, 000
Baku (including oil-well ter-		Maikop	52,000
ritory)		Nuha	38,000
Ekaterinodar		Petrovsk	18,000
Novorossisk	75,000	Poti	15,000
Erivan	35,000	Shusha	42,016
Elisavetpol	60,000	Stavropol	55,500
Kutais	55, 500	Sukhum	20,000
Alexandropol	51,000	Armavir	50, 500
Batum	30,000	Vladikavkaz	76, 000
Derbent	35, 000	Yeisk	50,000
Grozny	30,000		

## General Conditions in 1914 and Effects of War.

The year 1914 opened favorably for the Caucasus. Good crops in 1913, combined with high prices, the increase of the mineral production of the country, large foreign investments, the establish-

ment of new industries, and the impulse given to trade by the building operations on the projected railroads, the commencement of work on the harbor improvements at Poti, Tuapse, Baku, and Petrovsk, together with the construction works being carried on by Tiflis, Baku, and other towns, gave every promise of unusual prosperity for this district.

With the outbreak of the European war trading was temporarily suspended. The southern portion of this district became the theater of military operations, Black Sea ports were closed, and the carriage of freight by rail was interrupted. A considerable percentage of the wealthier population left the coast towns and took up their residence in the larger cities of the interior, which thus became congested, and the congestion was increased by the presence of troops and the influx of thousands of refugees from Armenia, Anatolia, and Persia.

Trade in certain centers greatly developed and prices of all commodities, as well as rents, reached unprecedented figures. Yet notwithstanding the high cost of living little privation was to be noted in the larger centers, except among the refugees. People spent money freely, theaters and shops were crowded, and the general complaint was directed not so much against the high prices of goods as against the difficulty of obtaining them. Dealers who had considerable stocks on hand made fortunes and were willing to pay almost any price to obtain goods.

In the agricultural regions very different conditions prevailed. Scarcity of labor, high prices of machinery and tools, the difficulty of obtaining loans, increased freights and taxes, and delays on shipments of farm products to the various centers brought about

unusual poverty and suffering among the rural population.

One important commercial effect of the war noted in 1914 was the breaking away from trade with German firms, which were numerous and well established throughout the district. The average local dealer was accustomed to buy German and a large proportion of other foreign goods from German commission houses or agents, who not only solicited orders, displayed samples, and arranged credits, but were also able to work out the price of the goods delivered at the merchant's warehouse. The only mental effort required of the local dealer in placing orders was to choose the goods preferred. Almost any goods could have been sold here toward the close of 1914 if they had been introduced on the market in as thorough and efficient a manner.

## Imports and Exports Through Batum.

The amount of imports into the Caucasus during the first seven months of 1914 was greatly in excess of the imports for the corresponding period of 1913. During the last five months practically all exports and imports ceased. The actual tonnage of foreign imports through the port of Batum in 1914 (all between Jan. 1 and July 30) was about 7,000 tons in excess of the total imports in 1913. The principal increases were in machinery, groceries, sulphur, sulphate of copper, and copper, iron, tin, and steel wares. No official statistics being obtainable, the following figures were obtained from notes collected at the customhouse and from private sources. No reliable estimate could be obtained of imports by rail and canal.

The principal articles of import and export through the port of Batum in 1912, 1913, and 1914 are shown in the following table:

Articles.	1912	1913	1914	Articles.	1912	1913	1914
IMPORTS.  Cement	114 20 1,956 319 275	Tons. 1,911  1,307 1,797 5,573 1,667 119  1,719 491  1,160 812 8,815 6,575  31,946	Tons. 564 344 953 2,161 4,669 2277 528 23 2,403 198 7,761 1,715 6,460 15,792 38,551	Albumen and entrails Carpets and rugs Cotton seed Grain and flour Licorice root. Manganese ore. Nuts and raisins Oil cake Petroleum products. Salt Seeds, grass and lucerne Silk, raw silk, and co- coons Skins and hides Tobacco Wood (boxwood, wal- nut, chestnut, and veneer) Wool Soya beans. All other articles Total exports	788 19, 293 25, 391 15, 647 277, 499 731 11, 193 545, 725 1, 114 1, 357 1,076 699 513 5,062 4, 264	13,856 28,047 24,291 429,900 12,445 624,022 1,601 983 1,238 411 4,494 4,492	Tons. 102 1,050 5,082 14,867 10,294 312,129 1,659 6,547 300,022 2,300 325 531 3,586 3,921 1,250 2,049 665,714

#### Commerce of Poti and Novorossisk.

The principal articles of import and export through the port of Poti in 1912, 1913, and 1914 are shown in the following table:

Articles.	1912	1913	1914	Articles.	1912	1913	1914
IMPORTS.  Cement	Tons. 4,923 29 4,952	Tons. 2,500 25 2,525 13 17,520	Tons.  15 15 15 5,507	EXPORTS—contd. Flour. Manganese ore. Wood: Boxwood. Pine. Walnut. All other articles. Total exports	Tons. 85 634,200 400 8,000 1,840 408 666,369	Tons. 75 649,780 888 8,300 2,226 165 678,972	Tons. 11 415,016 98 2,860 490 75 424,072

The principal articles of export through Novorossisk during the years 1912 and 1913 and the first six months of 1914 are shown in the following table:

Articles.	1912	1913	Jan. 1- June 30, 1914	Articles.	1912	1913	Jan. 1- June 30, 1914
Cereals	Tons. 703,742 748 135 1,486 10,140 149,828	Tons. 940,557 412 3,166 17,472 149,244	Tons. 844,944 175 9,157 73,864	Oil productsRails Wool.All other articles	Tons. 213, 168 2, 675 1, 140 167, 596 1, 250, 658	Tons. 219,462 3,203 185 38,501 1,372,205	Tons. 149,340 21 14,710 1,092,214

Shipping-Russian Trade With Persia.

The number of vessels of all nationalities that entered into the foreign trade of the port of Batum during 1914 was 365, with a tonnage of 609,936, as compared with 534 vessels, of 1,015,634 tons, in 1913. In 1914, British vessels took first place in tonnage (131,977 tons), followed, in order, by German (90.235 tons), Russian (85,590 tons), and French (82,341 tons). At Novorossisk 323 vessels, of

631,299 tons, entered into the foreign trade of the port, as compared with 419 vessels, of 841,514 tons, in 1913. In 1914 British tonnage amounted to 309,490 and Greek to 103,084. At Poti 77 vessels, of 175,551 tons, entered into the foreign trade of the port, as compared with 159 vessels, of 331,260 tons, in 1913. Most of the ship-

ping was British and Austrian.

Heretofore only a share of the total imports to the Caucasus passed through its Black Sea ports. A considerable portion of the imports were carried overland or through the Volga and Caspian waterways. Russian trade with Persia showed a considerable increase during the first half of 1914, but came to a sudden stop with the outbreak of the war with Turkey. This market, owing to the fact that the Russian tariff is applied on all goods in transit for Persia, was entirely closed to direct foreign imports, except for such goods as were sent by parcel post. A fair trade was carried on by Germany, by means of its parcel-post service, in such commodities as cheap jewelry, clothing, and men's and women's furnishings. The principal centers of the Caucasus for trade with Persia are Baku, Tiffis, and Astrakhan.

#### Railroad Development.

Notwithstanding the war, railroad development in this district during 1914 advanced considerably. The Kars-Sarykamish line was completed and opened to traffic toward the end of 1913; work on the Sarykamish-Karaurgan extension was almost completed in December, 1914, and the construction of the Kakheti Railroad was completed before the close of the year. The work started in 1914 on the Black Sea Railroad from Tuapse to Kvaloni, a distance of 215 miles, was temporarily suspended, but at the close of the war it is expected that work on this line will be rushed to completion. The construction of several other railroad lines in this district is being seriously considered, but no decision will be reached until the war is over. Refrigerator cars have lately been introduced in this district by the Vladikavkaz Railroad. American manufacturers of road-construction machinery might find it to their advantage to have their representatives visit this district.

#### Oil Prices and Production.

The oil industry in the Caucasus in 1914 was marked by higher prices and greater drilling activity than i.. 1913. Prices per pood (36.1128 pounds) ranged from 35½ to 51 kopecks (\$1.52 to \$2.19 per barrel of 42 gallons) for crude and from 35 to 41½ kopecks (\$1.62 to \$1.92 per barrel) for residuum at refineries. Illuminating oil at Caspian ports ranged from 45 kopecks to 1.03 rubles per pood (\$1.85 to \$4.24 per barrel).<sup>a</sup> Both prices and production were greatly influenced by the strike at Baku and Grozny during June and July. The loss occasioned by the strike is estimated at 2,400,000 to 3,600,000 barrels. The strikers numbered 26,500 men. Their demands were 8 hours' work and increases of pay of 15 to 50 per cent. The strike ended without any material advantage to the strikers.

The total production in 1914 is estimated at 9,037,710 tons, as against 9,016,000 tons in 1913. The following figures give the total

<sup>&</sup>lt;sup>a</sup> Conversions have been made on the basis of the normal exchange rate (\$0.515) for the ruble and the following equivalents, furnished by the United States Geological Survey, for the United States barrel of 42 gallons: 8.33 poods of crude oil, 8 poods of illuminating oil, 9 poods of residuum.

production of the principal oil regions in the Caucasus for the last three years:

Oil fields.	1912	1913	1914	Oil fields.	1912	1913	1914
Balakhany, Saboun- chi, Ramani, and Bibi-Eibat. Surakhany. Teheleken, Sviatoi Ostrof (Holy Is- land), and Bina- gadi.	Tons. 6,758,064 548,387	Tons. 6, 274, 193 677, 420	Tons. 5, 435, 484 862, 903	Hand-dug wells Grozny Maikop Ferghana, Emba, and other fields	145, 161 33, 840	Tons. 306, 450 1, 177, 420 96, 774 32, 130 9, 016, 000	Tons. 209, 677 1, 593, 549 403, 226 9, 037, 710

Active Drilling-Scarcity of Iron Pipes.

Drilling operations were exceedingly active, particularly at Grozny, and the prices of drilling rose above the already high prices of 1913. In August one of the most prominent oil "combines" of Baku bought up the Baku factories for producing all sorts of drilling instruments and has, it is reported, combined with the Baku drilling masters, thus forming a syndicate to monopolize the Baku drilling business.

There was a great scarcity of iron pipes at both Baku and Grozny during the entire year. Very light stocks are generally kept at Baku, notwithstanding that Russian factories, even in normal times, take six to nine months to fill orders. Special difficulty is met in obtaining the so-called American pipes for shutting off water in the wells. Almost all the industries in Russia manipulating iron suffered during the year from a shortage of this metal, notwithstanding the abundance of iron produced. Most of the production of the Krivoirog and other mines, it is reported, was exported to foreign countries.

At Baku 239 new wells were started in 1914 and 214 were completed, as compared with 325 started and 231 completed in 1913. The number of wells in exploitation was 2,670 in 1913 and 2,541 in 1914. The average number of feet drilled in 1913 and 1914 was 450,000 and 357,600, respectively, and the average depth of new wells finished was 1,232 feet and 1,080 feet, respectively.

#### Reclamation Work on Oil Fields-Development and Methods.

Work on filling up the Bibi-Eibat Bay to reclaim 594 acres for oil drilling was started in 1909, since which time little progress has been made. This section was inclosed in 1906, and it was calculated to complete the work before the end of 1913. Owing to great difficulties met by contractors and the lack of efficient machinery and methods only 27 acres had been filled by the end of that term. Several sand barges, tugs, and a large amount of machinery were brought to Baku early in 1914, which placed the contractors in a position to fill in about 18 acres per month. It is now estimated that the work can not be completed earlier than the close of 1916.

The development of the Emba oil fields, north of the Caspian Sea, progressed favorably. Their production in 1914 was reported at 182,581 tons. At the close of the year 30 wells were in operation and 12 more near completion. During the year two 6-inch pipe lines were laid from Dossor to Rukusha, on the Caspian, and extended 10 miles into the sea to facilitate loading the steamers carrying oil from Rukusha to Astrakhan. The total length of the pipe line is 45 miles.

New refineries were also completed at Rukusha.

The first refinery for lubricating oils at Grozny was completed during 1914. Grozny occupies second rank as oil producer, and it is estimated that it can easily produce at the rate of 2,419,355 tons for many years. The Grozny works are conducted on a more scientific and economical basis than the works at Baku. In the former all water is perfectly cut off by proper cementing in the wells. The oil is stored in iron tanks, which prevent the heavy loss by evaporation to which the Baku operators are subjected through the extensive use of earth reservoirs. The loss of Baku operators attributed to this cause alone is estimated at 322,581 tons annually, whereas the cost of iron tanks sufficient to store 100,000,000 poods (1,612,900 long tons) of crude oil would not, it is estimated, exceed \$4,000,000, or approximately the loss that is now felt in one and a half years.

#### New Oil Fields.

About 30 miles from Baku and 2 miles from the Caspian Sea, at the railroad station Puta, a large area has proved to be oil bearing. Trial drilling has been started, giving as a result a very powerful gas fountain. Oil has been struck in comparatively small depths, 700 to 1,000 feet. A future rich production is expected. In Baku the vast and rich Government oil-bearing area (8,000 acres) at

Surakhany has not as yet been exploited.

The new Grozny oil fields cover a territory of 6,750 acres, an area almost identical in size with that included in Old Grozny. The geological formation of the former is reported to have no connection with the old oil fields and can not be considered as a continuation of them. Over 40 wells were in operation in this region during 1914. The oil-bearing strata, however, are not struck at less than 1,750 feet. Wells have to be sunk very deep, it is reported—3,500 to 3,800 feet. The soil formation, however, is favorable and no great difficulties have been encountered.

#### Oil Shipments from Batum.

The shipment of petroleum products through the port of Batum during the last three years were as follows:

	Tof	oreign count	ries.	To Russia.		
Products.	1912	1913	1914	1912	1913	1914
Illuminating oil	Gallons. 86, 574, 413 47, 722, 188 12, 765, 757 44, 222	Gallons. 95, 491, 505 47, 869, 557 13, 805, 900 460, 906	Gallons. 61,752,764 26,061,860 10,294,765	Gallons. 7,883,505 664,323 334,580	Gallons. 12,637,120 1,016,077 108,270 4,080	Gallons. 16,037,949 241,890 298,910
Total	147, 106, 580	157, 627, 868	98, 109, 389	8,882,408	13, 765, 547	16, 578, 749

#### Oil Trade of Novorossisk and Baku.

The exports from Novorossisk to foreign countries of various oil products are shown in the following table for 1912, 1913, and 1914:

Products.	1912	1913	1914	Products.	1912	1913	1914
Illuminating oil Pitch Spirits (gasoline, etc.). Residuum	Tons. 41,611 140,288 19,786	Tons. 67,000 422 87,610 12,223	Tons. 52, 123 57, 442 7, 600	Machine oilLigroinCrude oil	9,344 2,139 213,168	Tons. 6,070 46,137 219,462	32, 175 149, 340

The following table shows the exports from Baku of the principal oil products in 1913 and 1914, together with the export routes and destinations:

Oil products and years.	To interior of Russia via Caspian.	By rail.	By road (local).	To Ba- tum.	To Persia.	Total.
Lubricating oils: 1913. 1914 Illuminating oils;	Tons. 97,212 95,950	Tons. 17,808 11,584	Tons. 4,734 5,387	Tons. 187, 218 62, 731	Tons. 33 62	Tons. 307,005 175,714
1913. 1914. Residuum:	835,400 822,327	94,260 59,839	20,580 21,281	365,716 163,562	23,504 31,256	1,339,460 1,098,265
1913. 1914. Spirits (gasoline, etc.):	3,014,035 2,613,901	120, 444 139, 911	13,887 15,210	75,531 48,384	2,662 2,661	3,226,559 2,820,067
1913. 1914.	587 374	53,029 19,311	1,001 810	14 10	73 92	54,704 20,597
Total: 1913. 1914.	3,947,234 3,532,552	285,541 230,645	40,202 42,688	628,479 274,687	26,272 34,071	4,927,728 4,114,643

#### Oil Stocks in Baku-Coal Industry.

The stocks of oil and oil products in Baku on January 1, 1914, and 1915, were as follows:

Oil products.	Jan. 1, 1914.	Jan. 1, 1915.	Oil products.	Jan. 1, 1914.	Jan. 1, 1915.
Crude oil Residuum Illuminating oils Lubricating oils	Tons. 279, 650 409, 014 147, 698 34, 383	Tons. 483,870 675,594 180,800 33,397	Spirits (gasoline, etc.) Other Total	Tons. 17,047 33,628 921,420	Tons. 24,568 31,618 1,429,847

Though petroleum is the staple fuel in the Caucasus and a small amount of coal is produced locally, a considerable quantity is imported from the Donetz Basin and from the United Kingdom. Of the latter 165,870 tons were imported through the ports of Novorossisk and Batum during the first six months of 1914. The total production of coal in the Caucasus was 68,004 tons in 1912, 69,361 tons in 1913, and 66,511 tons in 1914.

The coal industry of the Caucasus is in its infancy, but is capable of considerable development. Traces of coal are found in many of the Governments of this district. Perhaps the most important known deposit is at Sosooze, in the Government of Kars. This deposit covers an area of more than 300 square miles, and the coal is reported to be of uniform quality and high grade. Serious prospecting work was started only in 1914. The concessionaire [whose name may be obtained from the Bureau of Foreign and Domestic Commerce or its branch offices; refer to file No. 65695] has also been granted a concession for the construction of 60 miles of railroad from Sosooze to Kars. The retail price of local coal at Tiflis averaged during the year \$9.58 per ton, and the price of Donetz coal at Tiflis in 1914 ran from \$22.35 to \$23.95 per ton. During December, however, prices rose by 50 per cent. The output of coal in the Donetz Basin increased during 1914 by 19 per cent, and of anthracite by 25 per cent. The consumption of coal by local railroads increased by 22 per cent. Of foreign coal 445,171 tons were imported into Russia

for the use of the railroads, duty free, during the first six months of 1914, against 112,903 tons for the corresponding period of the preceding year.

Cement, Manganese, and Copper Industries.

The cement industry in the Caucasus continued its rapid development in 1914. Several new factories were started in the neighborhood of Novorossisk, prices remaining high on account of the extensive building operations throughout the Empire. With the outbreak of the war the output of most of these factories was diminished and the new works and extensions were temporarily suspended.

The year 1914 opened unfavorably for the manganese industry in the Caucasus. The foreign demand for ore during the first five months of the year was much below the demand for the corresponding period of 1913, and the increased cost of production due to the strikes in July and August, 1913, made it difficult to compete with Indian prices. The demand, however, increased in May and continued increasing until early in August, when an embargo was placed on shipments of ore. The following figures show the exports of manganese ore from the Caucasus during the last five years and the growing tendency to ship from Batum rather than from Poti:

Ports.	1910	1911	1912	1913	1914
Batum		Tons. 129, 233 442, 460 571, 693	634,200	Tons. 421,900 649,780 1,079,680	Tons. 312,129 415,016 727,145

The value of shipments of manganese ore to the United States during the last five years was as follows: 1910, \$259,898; 1911, \$197,737; 1912, \$521,791; 1913, \$658,987; 1914, \$199,923.

The average prices of manganese ore per long ton (2,240 pounds) during 1914 were as follows: January to July—ordinary ore (48 per cent), \$2.24, washed metallic ore (52 to 53 per cent), \$2.87, peroxide (85 to 88 per cent), \$4.48; July to December 31—ordinary ore, \$1.46, washed metallic ore, \$1.60, peroxide, \$3.02. The stock on hand at Batum, Tchiatouri, and Poti at the close of 1914 is estimated at 1,600,000 tons.

The outlook for the development of the copper deposits in this district appeared very favorable during the first six months of 1914, though prices averaged lower than during the preceding year. The production of copper in Russia in 1914 is estimated at 32,273 tons, against 33,580 tons in 1913. The share of this total produced in the Caucasus in 1914 was 8,423 tons and in 1913, 10,005 tons. A complete line of mining, concentrating, and smelting machinery is employed throughout this district, which has in great part been imported from the United States.

#### Wool Exports, Production, and Prices.

Wool in normal times is the principal export from the Caucasus to the United States. In 1914, however, the value of its export to the United States dropped to \$708,825 from \$848,581 in 1913. Prices kept above normal. The following figures give the production and prices of unwashed wool in the central and south Caucasus for the last two years:

	19	13	1914	
Origin of wool.	Tons.	Cents per pound.	Tons.	Cents per pound.
Georgian spring clip. Autumn clip of preceding year. Colored wool, spring. Autumn clip.	1,935 645	a 11-12 11-15 7- 9 11-13	1,210 1,613 484 161	a 11-13 13-16 9-10 11-13
Total	4,112		3,468	

a Prices of this wool, brook washed, were 13 to 17 cents per pound in 1913 and 14 to 19 cents in 1914.

Wool produced in the north Caucasus finds its way to and is handled from Rostof-on-Don. No statistics covering that region are obtainable by this office.

#### Goat and Sheep Skins.

The year 1914 was not entirely unfavorable for trade in goat and sheepskins. The production was slightly above normal and prices remained high, most of the skins being sold on the local market, the balance at Nizhni. The home demand for leather of all kinds and for sheepskin coats having greatly increased since the outbreak of the war, the exports in 1914 were much smaller than those of the preceding year. The average annual production of this district is estimated at 100,000 goatskins and 600,000 sheepskins. This estimate includes the skins that find their way to the central markets and does not take into consideration the skins consumed in local To these figures must be added about 200,000 home industries. goatskins and 300,000 sheepskins from Persia. The average weight of Caucasus goatskins is 260 to 300 pounds per 100 pieces. Persian skins are lighter, averaging not more than 253 pounds per 100 pieces. Prices of Russian goatskins ranged from \$0.46 to \$0.62 per piece, Persian from \$0.36 to \$0.41 per piece. The price of Russian sheepskins ranged from \$0.36 to \$0.62 per piece, the Persian skins selling at a slightly higher rate on account of the wool; weights ranged from 290 to 400 pounds per 100 pieces. The principal foreign buyers are the United States, Germany, and France, and the principal local market is Tiflis.

### Beef and Sheep Casings.

An important and growing business in the Caucasus is the exportation of beef and sheep casings. The former, both dried and salted, are produced in large quantities in all the principal towns of the Caucasus. Part of the production is consumed locally and the remainder was formerly exported to Austria-Hungary and Germany. Toward the close of the year prices fell and the depression in this line was marked. The contrary can be said in regard to sheep's casings, there being an increased demand from the United States. Several shipments were made via Vladivostok, mostly by parcel post to that port. Owing to leakage the post office has lately refused to accept parcels containing salted casings. The consequence is that at the close of the year there was a large stock on hand, but prices remained firm in view of the demand in the United States. The total annual production of the Caucasus is estimated at over 600,000 pieces, to which must be added 2,000,000 pieces imported from Persia. Tiffis is the principal market for this product. The Caucasian salted

casings are rolled round a board in rings about 7 inches in diameter, each ring containing 69 to 75 feet, caliber  $\frac{3}{5}$  to  $1\frac{1}{10}$  inches. About 30 per cent of these rings are composed of one entire piece, 20 per cent are made up of two pieces, and 50 per cent of three or four pieces. The quality varies widely. It is estimated that 5 to 10 per cent of the total production is  $\frac{3}{5}$  to  $\frac{7}{10}$  of 1 inch in diameter, 25 to 30 per cent

from  $\frac{7}{10}$  to  $\frac{4}{5}$  of an inch, the balance from  $\frac{4}{5}$  to  $1\frac{1}{10}$  inches.

The Persian are superior in quality to the Caucasian sheep easings, but the number of pieces to the regulation ring or parcel of 69 to 75 feet is greater. This is explained by the fact that the Persians slaughter principally full grown sheep, the casings sometimes being 115 feet long. These long casings are cut into one of regulation size, the short ends being used to make up the 3 or 4 piece rings. It is estimated that about 10 per cent are in one piece, 30 to 40 per cent in three pieces, and the remainder in 4 or more pieces. The average caliber of the casings is considerably larger than the Caucasian, many reaching  $1\frac{1}{6}$  inches.

The prices of sheep casings in 1913 ran from \$0.08 to \$0.09 per ring, in 1914 from \$0.11 to \$0.12. Of the total production, Germany in 1914 took 40 per cent, Austria 30 per cent, and the United States 20 per cent. The United States, however, is believed to be the greatest purchaser, as a large proportion of the exports to Germany

eventually found its way to the United States.

One firm in Tiflis makes it a speciality to handle untrimmed salted sheep casings, one ring containing 79 to 92 feet; the price per ring is slightly higher than that of the regulation size. A considerable stock of dried sheep casings was left over at the close of 1914. These casings are prepared from young lambs, and are packed in bundles containing 18 to 22 strings (13.8 inches), every 50 bundles weighing 0.88 to 0.99 pound. Prices in 1914 ran from \$41 to \$62 per 1,000 bundles. About 30,000 dried lamb casings are produced annually in the Caucasus, all of which are normally exported to Germany.

Principal Crops of the Caucasus.

According to the Central Committee of Statistics of the Ministry of the Interior, the area and production of the principal crops in the northern Caucasus and the Government of the Black Sea were as follows in 1913 and 1914:

0.00	19	013	1914		
Crops.	Acres.	Short tons.	Acres.	Short tons.	
Rye: Winter Summer Wheat: Winter Summer Barley Spelt Buckwheat Millet Corn Peas Lentils and beans Oats Potatoes Linseed Hemp seed	4, 328, 206 535 19, 357 1, 023, 449 839, 215 5, 459 5, 996 1, 105, 815 196, 032 144, 079	196,600 16,300 3,197,000 1,530,300 2,021,560 200 6,100 218,000 371,360 2,500 2,400 484,700 506,000 19,000 4,100	423, 940 16, 584 7,039, 359 3, 568, 617 4, 496, 958 1, 679 19, 775 967, 50 847, 444 4, 962 8, 639 1,100, 821 205, 889 182,053 16, 377	147,100 6,400 2,185,400 1,101,100 1,600,800 6,700 397,900 544,200 2,100 2,800 485,003 539,900 (a)	

Figures for the 1914 harvest in the other provinces of the Caucasus are not yet available. In 1913 the total production of the principal crops in the Caucasus was as follows: Winter rye, 233,100 tons; summer rye, 20,800 tons; winter wheat, 3,754,300 tons; summer wheat, 1,762,000 tons: barley, 2,568,200 tons; spelt, 7,400 tons; buckwheat, 7,100 tons; millet, 234,800 tons; corn, 591,700 tons; peas, 3,700 tons; lentils and beans, 4,700 tons; oats, 496,400 tons; potatoes, 592,200 tons; linseed, 22,500 tons; hemp seed, 4,300 tons.

#### Cotton Cultivation-Area and Production.

Though the cotton crop in 1913–14 was not as good as the crop of 1912–13, the area under cultivation was greater, and the future of cotton growing in this district, notwithstanding that the area under cultivation may be somewhat reduced during the current year on account of special conditions, is looked forward to with confidence. The poor crop of this year must be attributed mainly to the ravages of the bollworm and to unfavorable weather conditions.

The following statistics, obtained from the Agricultural Society of the Caucasus, give the total area under cultivation and the crops in the several cotton-growing Governments in Transcaucasia during

the last five years:

Governments.	1909–10	1910-11	1911-12	1912-13	1913–14
Erivan: Acres Pounds. Elisavetpol: Acres. Pounds. Baku: Acres. Pounds. Tiflis: Acres. Pounds. Kutais: Acres. Pounds. Total: Acres. Pounds.	78, 300 18, 777, 200 38, 340 7, 763, 650 15, 120 2, 654, 085 1, 404 281, 658 2, 295 306, 935	98, 850 21, 666, 000 71, 820 19, 138, 300 32, 940 6, 572, 020 974, 970 5, 130 1, 036, 357	109,080 24,191,370 143,910 26,938,060 63,720 11,157,990 2,455,480 7,290 794,420	97, 740 21, 712, 943 125, 955 24, 410, 360 57, 915 10, 453, 845 14, 499 2, 910, 466 7, 506 664, 424	108,000 19,800,500 143,100 23,471,500 54,000 9,027,500 15,120 2,708,250 5,400 722,200

## Silk Production and Prices.

According to official statistics, 400,000 families, or 2,000,000 persons, scattered over 3,000 villages, are engaged in the cultivation of silk cocoons. The annual production is estimated at 10,833,000 to 12,638,500 pounds, and is valued at \$2,300,000 to \$3,000,000. The following figures, compiled by the Sericulture Society of the Caucasus, give the production of raw silk and prices of cocoons in this district for the last six years:

Items.	1909	1910	1911	1912	1913	1914
	\$0.20-\$0.22	\$0.22-\$0.23	\$0.23-\$0.24	\$0.17-\$0.19	\$0.20-\$0.23	11,555,200 \$0.24-\$0.29 \$0.86-\$0.93

The outlook for 1915 is unfavorable. The majority of the production normally found its way to Marseille. Owing to the uncertainty

of being able to export their product, the peasants refused to buy their usual stock of eggs last March, and most of those on the market were destroyed.

#### Tobacco Industry.

Tobacco growing ranks next to viniculture and cotton growing as one of the principal industries of the Caucasus. The annual yield of the vine is estimated at \$12,500,000, the cotton crop averages in value \$10,000,000, and tobacco, with its comparatively small acreage, brings in annually over \$6,500,000. The following statistics of the Agricultural Society give the approximate area under cultivation and the crop of 1912–13 in the following divisions:

Divisions.	Acres. Pounds		Divisions.	Acres.	Pounds.
Sukhum district. Black Sea Government. Tiflis Government. Batum Province. Kutais Government. Zakatal district.	8,167 1,911 1,760 688	15, 990, 591 6, 014, 518 1, 735, 916 1, 925, 819 406, 093 506, 948	Elisavetpol Government Baku Government Erivan Government Total	105 440	391, 974 147, 726 180, 225 27, 299, 810

No official statistics of the tobacco crop of 1914 are as yet available. The area under cultivation increased from 35,506 acres in 1913 to 38,000 acres in 1914. The crop is estimated as slightly lower than in 1913, owing to unfavorable meteorological conditions. The poorest crops were in the Sukhum and Tuapse districts, which produce the finest qualities. The crop in these two districts averaged 401 pounds per acre, as compared with 735 pounds per acre in 1913.

The majority of the tobacco plantations are owned by small farmers, having no capital and owning one-half to 3 acres of land.

#### Trade With United States.

Though it is impossible to give an accurate estimate of the amount and value of American goods imported during 1914—owing to the lack of reliable statistics, the great territory included in this district, and its many commercial centers and ports of entry—it is safe to assume that the value of American manufactures imported during the first seven months of 1914 was greater than the total value of such goods imported in 1913. The greatest advance to be noted was in agricultural machinery (including binder twine), the total imports of which are valued at \$2,600,000, as against \$2,000,000 in 1913. There was a considerable increase in imports of mining, drilling, and excavating machinery, and automobiles. Little advance is reported in the sale of American motors.

American manufacturers of machinery must bear in mind that machinery, to suit local requirements, should be extra strong and not complicated. They should insist that agents sell machinery adapted to the work for which it is purchased. A case was recently drawn to the attention of this consulate in which a small steam shovel, used in the United States for light ditch work, was sold for digging out iron ore. The consequence was a broken shovel and the seriously damaged reputation of the manufacturer, who in this instance was not informed by his agent of the nature of the work that the machine would be required to perform. This incident is of special interest,

because the market for steam shovels in the Caucasus is bound to become of great importance, and manufacturers must assure themselves that agents understand the business sufficiently to see that their customers get the size and type of shovel suitable for the work required. This is particularly important because some Russian works are in a position to compete in this article.

#### Hardware, Leather, and Footwear-Other American Goods.

At the beginning of the year imports of American hardware increased considerably. These goods have been imported principally through European commission houses and in many instances have been entered as of European origin. The following articles of American hardware and cutlery are best known in this market: Saws, files, plumbing supplies and pipes, brass fittings, pipe joints, razors, ice-cream freezers, clips, etc. The hardware trade in the Caucasus offers to American manufacturers who are able to study local requirements and willing to meet local conditions the widest field for expansion. American leather and footwear were beginning to obtain a firm foothold in all the principal cities of the Caucasus: the sudden stoppage of imports toward the end of the year created a serious crisis in this trade, American shoes that retail in the United States at \$3.50 or \$4 being sold as high as \$12.50 per pair. Most of this trade was handled, however, through European agents. Complaints reached this consulate that shoes of certain well-known makes were not of uniform quality, and it is believed that many imitations flooded the market.

Among articles of American origin imported to this market in 1914 on a limited scale are musical instruments, chemicals, electric supplies, refrigerators, photographic appliances, toilet requisites, and groceries.

The value of American goods sold in the Caucasus in 1914 is estimated at \$4,000.000 to \$4,500,000, showing a balance for the year in favor of the United States of \$2,237,805 to \$2,737,805.

#### Declared Exports-Need of American Banks.

The declared exports to the United States invoiced at the Batum consulate during the last two years were as follows:

Articles.	1913	1914	Articles.	1913	1914
Almonds	\$22,913	\$64,796 543 524	Sunflower seeds Tobacco Wine	\$14,976 159	\$633 8,373
Casings, sheep. Glue stork. Licorice root. Manganese ore. Nuts. Potash, carbonate of.	1,023,184 658,987 52,628	443,309 199,923 13,243 12,312	Wood: Box Veneers Walnut Wool	1,892	1, 112 14, 097 115, 754 798, 825
Raisins Rugs Skins: Goat Sheep	4, 198 184, 864 6, 584 52, 636	121,655 16,799 50,297	Total	3, 119, 750	1, 762, 195

No invoices were declared for shipments to the island possessions of the United States.

A point that militates against American products is the lack of assistance rendered by American banks to American exporters. It

may be taken as an established principle that Russian merchants will not, under usual conditions, pay for manufactured goods before the goods are received. The usual credits received by local dealers range from 30 days to 12 months from date of delivery. On the other hand American manufacturers as a rule refuse to sell otherwise than cash with order or f. o. b. seaboard. The result of this conflict of customs is to throw American trade with Russia largely into the hands of European commission houses.





