

THE EFFECTS OF AMERICAN TARIFF PRACTICES ON SILK PRODUCTS Thesis for the Degree of M. A. Mei Nan Sung 1929



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Economics

"THE EFFECTS OF ALERICAN TARIFF PRACTICES ON SILN PRODUCTS." ----

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Michigan State College August, 1929.

Mei Nan Sung

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Contents

# Chapter I

Introduction:

- 1. Purposes of this study.
- 2. Arguments for and against protection.
- 3. Tariff as the largest sources of federal revenue is not true at present time.

# Chapter II

History and characters of silk industry:

- 1. A brief history of raw silk industry.
- 2. A brief history of silk manufacturing.
- 3. Nature of silk fibre.
- 4. Stages of silk industry.
- 5. Character of labor.
- 6. Localization of silk industry in the United States.

## Chapter III

Production, Consumption, Importation, and Exportation of Raw Silk and Silk Manufactures:

- 1. World Production of raw silk.
- 2. Domestic production of silk goods.
- 3. Importation of raw silk and silk goods.
- 4. Exportation of silk goods.

## Chapter IV

Silk Industry in the United States and Its Tariff:

- 1. The Problem of raw silk and tariff.
- 2. The rates of duty imposed on silks by the various acts.
- 3. Silk industry in the United States has passed the age of infancy.

## Chapter V

The Relation of Tariff with Different Branches of Silk Goods:

- 1. Thrown and sowing silk.
- 2. Broad silks.
- 3. Clothing.
- 4. Handkerchiefs.
- 5. Knit goods.
- 6. Manufactures of n. s. p. f.
- 7. Pile fabrics.
- 8. Spun silk.

# Chapter VI

The Growth of Silk Industry in the United States Depends upon Many Other Causes beside the Tariff:

- 1. Efficiency of American Fagtory System.
- 2. Purchasing power of the American consumers.
- 3. The problem of transportation and market in relation to silk industry.
- 4. Silk is regarded as a necessity at present time.

## Chapter VII

Artificial Silk in Relation to Natural Silk:

- 1. Artificial silk as a competitive commodity.
- 2. Artificial silk as a supplementary commodity.

## Chapter VIII

The Effects of Tariff on Silk Goods Among Different Groups of People:

- 1. Manufacturers.
- 2. Importers and Exporters.
- 3. Consumers.
- 4. Labor.
- 5. Farmers.

#### Chapter IX

Conclusion:

- 1. Conclusions made from other similar studies by different authors.
- 2. The Growth of silk industry is not entirely due to the protective tariff.
- 3. The silk industry in the United States is well established and strong enough to compete with foreign producers.
- 4. There is only a limited amount of importation.
- 5. The public should be relieved from the burden of supporting a well established industry.

## Chapter I

#### Introduction.

#### 1. The purposes of this study.

With the recent changes of the United States, from a debtor to a creditor; from agricultural industry to manufacturing industry; from a nation dependent on European manufactured goods to a leading manufacturing nation in the world: the foreign trade policy is mostly affected. The tariff volicy of the United States is so chosely connected with its foreign trade, any changes in the foreign trade policy the tariff policy is bound to be changed. As a creditor and leading nanufacturing nation, its foreign trade palicy naturally should be the one which desires to export as much as it can export and collect every single cent the other nations owe her. What the other nations should do is to pay them back by some way which is possible, and the only possible way for them to pay is by sending to the United States the goods they produce. If the United States refuses to take the goods, she has to wait indefinitely. But if the United States desires to take the goods, then the only thing to do is to let them in and not to prohibit them.

American industries are the products of the protective tariff together with many other causes, byt undoubtly tariff plays the most important part. Protective tariff on the one hand means that the foreign producers or importers make less profit, on the other hand that the American consumers have to bear all the burdens

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for the supporting of a new industry. Protective tariff is justified so far when the home industry is young and impossible to commete with foreign competitors. It is unjust after the industries, which, stimulated by the protective tariff, are well established and able to compete with their foreign competitors, yet the public still has to bear the same amount of burden just for the benefit of a few.

There has been an abundance of theories and arguments for and against the principles of protection and free trade, but unfortunately most of them are either too general in their statements or without consideration of time, space, and particular industry. What we are going to discuss is not the question which of those principles is valid or in-valid; but the question of when, where, and which industry should be protested; and when, where, and which industry the articials of free trade abould be analled from the point of view of public welfare. Such questions may be answered by an inductive study of some specific industries and their relation with the tariff. For the reason, that the silk industry is one of the best examples which is created by the stimulation of protective tariff and has reached its maturity for some years already, the author choses this particular industry as case of study hoping that it may throw some light on such a complicated question as the American tariff policy, and the public burden which the public is no more needed to bear may be relieved in the nearest future. Furthermore that the foreign trade of the United States may be built on a sound basis.

2. Arguments for and against protection.

Before going farther into the concrete relation of tariff and silk industry, let us keep in mind some of the main arguments by which these policies are defended and see how does these arguments applied to the silk industry. In this chapter the author merely states what the arguments are without taking into consideration of their validity or given any criticism. (1) Arguments fro protection:

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1. It promotes nationalism-- " Domestic trade, it is claimed, draws the citizens of country together, while interna ional trade is commopolitan and tends to their separation..... The validity of this argument, it will be noted, depends largely upon the truth of the assumption that the development of a strong feeling of national unity is a thing to be desired."

2. Government should foster infant industries in order to developour natural resources and to produce diversity in industrial pursuits.

3. National defense -- " A sufficient diversification of industry to prevent industrial paralysis and to indure a prompt supply of the necessaries of life in time of war is manifestly desirable."

4. Home market argument -- " That the home market is superion because it is a surer market. A foreign market is likely to be closed by war or by capricious changes in foerign tafiffs." But in fact it is contrary to the claim because "When we take one

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(1) Ely, Outlines of Economics, pp 364. All quotations are quoted from chapter 19.

home market from the foreign producer, we are likely to give another home market to some other foreign producer, or---what is much the same thing--- when we capture a new home market for one domestic industry, we are likely to deprive another domestic industry of an equivalent home or foreign market which it has theretofore enjoyed. Thus, protection for the American manufacturer is likely to injure the foreign market of the American farmer and raise the later's cost of living and expenses of production."

5. A defense against "dumping"-- " By dumping is meant the sale of products abroad at prices lower than those charged at home."

6. To diversify industry.

7. To equalize costs of production here and abroad. Arguments against protection:

1. Theory of comparative costs -- " so long as there are relative, not necessarily absolute, differences in the cost of producing cheaply portable articles in various countries of the world, so long will there by international trade in those articles. Protective tariffs, therefore, merely divert capital and labor from intrinsically more productive to intrinsically less productive industries."

2. That protection is not necessary to diversify industry in a country with such varied natural resources as the United States.

3. The weakness of the home market argument -- " But, as a matter of fact, howe products will seek foreign markets, and the nation that sells abroad must buy abroad."

4. Protective tariff does not necessary mean increase the wages of labor-- " France wants protection in order to protect her lowpaid workmen against the greater skill an efficiency of American highly paid workers. The United States, on the other hand, must have protection in order to shield her highly paid employees from competition with the pauper labor of Europe."

5. "The protective import duty, as compared with the import duty for revenue only, is a poor tax. It is uncertain and perversely variable."

6. "Protection makes the temporary prosperity of influencial classes dependent upon government bounty, protection encourages those classes to exert a demoralizing pressure upon federal legislation."

7. Protection fosters monopoly.

These arguments are quoted from Ely's Outlines of Economics, considered by the writer as the most princip**al** arguments for and against the protection in general. The specific arguments and facts that show the unnecessity of protective tariff for silk industry at present will be shown in the following chapters.

3. Tariff as the most important source of Fe-

deral Revenue is not true at present time.

According to the Constitution of the United States from the day of the Declaration of Independence up to the Civil War, the only sources of the Fedzral revenue was from the custom duties. From the Civil War up to the first decade of the Twentieth Cen

tury, the custom duties still were the largest amount of the Federal revenue. During the World War the government found plenty of means of augmenting is revenue from other sources. " In 1914 our customs revenue comprised 292 millions of dollars out of a total government incole of 734 millions. In 1920 the customs brought in only 323 millions of dollars out of a total income  $\binom{2}{2}$  of \$6,695,000,000." The custom revenue was only such a small per cent in comparison with the total of the Federal revenue.

Let us take the amount of silk goods imported in 1921, the amount is \$48,289,000. Suppose the average per cent of the duty on silk goods is 50% the duty paid will be \$24,124,500. If it is compared with the total income of \$6,695,000,000, it almost can be neglected.

From the facts and whanges shown above, the argument of high tariff for revenue does not need any further consideration. Even though that the Governmental revenue is some what depended upon the tariff, but a high tariff does not mean a big revenue. The Underwood Tariff, which carries the lowest average rate of duty of any enactment since the Civil War has prowed its-self capable of producing a minimum of \$182,759,000 in 1918, and maximum of (3) \$323,537,000 in the year of 1920.

(2) The Nation, 12:582 Ap 20'21.
(3) Annals of the American Academy, 1921, pp 95.

#### Chapter II

History and Characters of Silk Industry.

It is not the writer's desire to consider the history and character of the silk industry in detail, the only reason for having this chapter here is to give the readers a gerneral view of the silk industry.

1. A brief history of raw silk industry:

Sikk was discovered in China about 2700 B. C. by Si Ling-Chi, (1) Queen of Huang-Ti, the third emperor of China. We can say for sure so far that the silk was discovered about 2700 years B. C., but it might have been discovered long time before the history had any records of it. Since the discovery China has monopolized the supply and culture of silk until recently Japan takes the lead in the supplying of raw silk to the western nations.

Silk was introduced to the Western nations at first by the Persians, but the art of silk culture was still kept in secrecy (2) by the Chinese. In 555 A. D. silkworn eggs were taken by two Mestorian Monks to their home country and then the industry was spread  $\cdot$  rapidly over Southern European States.

Silk culture in America was started in 1622 among the new England colonies as Virginia, New Jersey, Rhode Island, and so forth, even with some great governmental aid and encouragement no success has ever been obtained. Reportly, California has attempted to raide raw silk and has shown some possibility of success.

(1) & (2) E. E. Thompson, Silk, pp 170, 174.

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At present, China takes the lead in the production of raw silk, Japan takes the lead in the exportation of raw silk, and Italy (3) takes the lead in the producing of best quality of raw silk.

2. A brief history of silk manufacturing:

China was the first one to discover the raw silk, naturally China was the first one to manufacture the silk goods. With her slowness to invent new labor saving machinery and to adopt the western manufacturing processes, China is left far behind the other nations in the manufacturing of silks.

Japan, probably with the same weakness, is not a very strong competitor among the silk manufacturing countries, although she supplies most of the raw silk to the other countries and has plenty for her own. Desides the proximity to the raw silk her labor supply is much cheaper than the other competing countries.

Among the European countries, France is the leading silk manu-(4) facturing and exporting nation of silk goods, next to France is Italy. France is famous in producing high quality materials with fashionable designs, that are made by skillful labors and required a great deal of hand work.

Due to the high Civil War tariff, the American silk industry sprang up. After 1880 up to the present time, the United States (5) lwads all the other countries in the value of silk manufactures.

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(3-5) E. B. Thompson, Silk, pp 170-80.

## 3. Lature of Silk Fibre.

Silk is produced from cocoon of an insect usually and rather inaccurately called the "silkworm". This popular name originates from the facto that the silk-probability moth before reaching maturity passes through a caterpillar or worm stage during which it spins for itself the cocoon from which later it emerges as a true moth, closely in nature to the butterfly. The cocoon, formed from an unbroken fibre secreted from the caterpillar's body is gathered and the fibre unwound, furnishes the silk fibre (6) of commerce.

The stages in the life of a silkworm are as follows:

1. The egg.

2. The worm or eaterpillar.

- 3. The coccon.
- 4. The chrysalis.

5. The moth.

Shortly after the mating and the laying of the eggs, the moth (7) dies. Its cycle of life is completed.

The properties of the cultivated silk give it preeminence among textiles when it is pure and well manufactured, for such silk combines strength, lightness, cleanliness, durability, high luster, (8) and beauty. Its properties may be briefly outlined: 1. Fineness:- The diameter of its outer fibre is .00052 inch, and inner fibre is.00071 inch.

(6-7) P. H. Nystrom, Textiles, pp 188.

(8) Woolman and Legowan, Textiles, pp 260

2. Softness:- Silk, especially after the gum is removed has an  $\bar{u}n$ usual degree of softness, which is of value in the manufacture of some of the most exquisite materials.

3. Lightness.

4. Endurance.

5. Strength: - It is the strengest of all fibre in relation to its size when the gum has not been removed.

6. Elongation: - This quality is high in silk which has been "boiled off" and a thread may be stretched from cac-seventh to one-fifth of its original length.

7. Electricity:- It is a poor conductor of electricity, but a good generator.

8. Heat conductivity:- It is not a good conductor of heat, consequently even when it is wet it feels warm in contact with the body.

9. Cleanliness: - Silt sheds dust.

10. Transparency: - The transparency of some of the woven material lends attraction.

11. Luster: - Of the naturally produced textiles, silk is the nest lustrous.

12. Hygroscopicity: - The power of absorbing water, dye, or other substances in solution is very great.

# 4. The Stages of Silk Industry.

There are three distinct stages in the silk industry, that will be briefly discussed in the following. They will show us why some of the stages can not thrive in the United States.

1. Raw silk stage; - This stage includes from the raising of silkworms, collection of coccons, and the process of reeling, then it is marketed as raw silk for manufacturing. This stage requires a great deal of labor and patience, and the most important thing is that the cost should be low. This stage is of such long processes, that most of the work must be done by hand, no machinery has ever been invented to replace the man labor to handle such processes as wicking mulberry leaves, feeding, mating, and so forth, except those machines have b en used for the unrecling of the silk fibres from coccon. Even though, the reeling process also requires a great deal of hand work. Therefore this stage can be done only in the country where labor is extra-ordinary cheap. II. The manufacturing stage: - There are so many processed used in the manufacturing of finished silk goods from raw silk, it is impossible for us to discuss here all of the processes and besides it is not within the scope of this paper to discuss them in detail. Therefore the writer merely discusses some of the most important processes as brief as he can.

A. Silk Throwing: - Throwing is essentially a process of cleaning, doubling, and twisting the single fibres as they cole from the fileture after the process of reeling. These processes are doue mostly by automatic machines and these machines can be easily

handled by wiskilled labor, so at present tile the throwing manufacturing is largely done in the state of Pennsylvania, where a large amount of women and child labor can be obtained. B. Weaving:- It is a process of weaving different silk fibres into different finished goods as ribbons, broad goods, pile fabries, and including such processes as cloth making or tailoring. It has to be near to the markets and requires more skilled labor. (9) C. Dyeing:- The processes of throwing and dyeing are usually carried on in different mills by entirely different concerns, but some of the larger mills complete all the processes.

1. Yarn-dyed goods, which have been dyed in the skein before weaving. The dyeing process consists of three separate processes, they are; builting off, weighting of silk, and then dyeing.

2. Piece-dyeing: - Piece-dyed goods are woven with the gum in the silk; this gum must first be boiled out of the goods and then they are either dyed in the piece or prepared for printing. III. The distributing stage: - This stage does not belong to the silk industry inclusively, it is a general stage of every comodity. It requires the same kind of marketing facilities as the other commodities. The general channels of marketing is consisted of wholesalers, importers, exporters, retailers, then the goods are distributed to the consumers.

5. Character of labor in the silk industry. The raw silk industry, for the most part, calls for labor of a manual sort exacting only a moderate degree of intelligence,

(9) E. B. Thompson, Silk, pp 52.

except in the processes of mating and realing, they require a little bit more of skill. Since these processes are done in the raw silk producing countries, its labor condition is out of the scope of this paper. The process of throwing is mostly done by women and children, and this industry is centered in the state of Pennsylvania, there the question and evils of women and child labor arise. In the silk industry as reported by the Twenty Second Report of the Industrial Statistics of Rhode Island in 1908, the average wage is from 7-8 dollars, and 92.8% of the employees is foreign born and only 7.2% is American. This shows that although the silk industry is located in the United States, almost all of the labor is supplied by the foreigners. The argument that the silk industry needs high tariff to protect high paid labor is without any true foundation.

The following statistics will show the importance and seriousness of the women and child labor in the silk industry in compare (10) with men.

Year	],[en	Women	Children
1880	9,300	16,396	5,566
1890	17,600	28,914	2,866
1900	24,206	34,800	6,413
1905	27,039	45,198	7,366

(10) Mason, The Silk Industry and the Mariff, pp 53.

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## 6. Localization of Silk Industry.

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We have gone through the general nature and processes of silk industry and its labor conditions, it is next for us to take up the topic where are these factories located. "The location of the silk manufacturing center is a factor of vital importance to the success of the industry, for closedy connected with it are the questions of labor supply, power, ground rent, taxes, and accessibility to raw silk and markets. The ability of our manufacturers to compete with those of European countries depends largely on their advantages or disadvantages in these im-(11)"There are now upwards of twenty-five differportant factors." ent states in chich silk manufacture is carried on in some form or other, but the amount produced in most of these states is inconsiderable. The five states; Pennsylvania, New Jersey, New York, Connecticut, and Massachusetts are the main sites of the American industry." We will take up these five states separately and see how these factors have influenced them. 1. Connecticut :- With the advantage of the "early start" due to the nearness of silk supply which in turn was stimulated by bounties given to the raising of raw silk, Connecticut held the lead for many years. Another fact which distributes to it was that there was plenty of labor skilled in the manfifacturing of sewing thread. The unsuccess of raising raw silk in Connecticut and later on most of the raw silk was supplied by the Oriental countries imported through New York, the silk industry in Connecticut was (12)greatly decreased. silk Industry and the Tariff, pp 41-42.

2. New York: - New York City has the advantages of nearness to the markets of both the raw silk and silk goods and with plenty of labor. It is only limited by the expensive land and high taxes that only the manufacture of trimmings, braids, tassels, fringes, which dom not take up much space, comes to the fore. The same conditions obtain in Doston, and Philadelphia, and many other (13) establishments were started in these three cities.
3. New Jersey: - Those factors that limited the New York City to the manufacture of the problem leads to the same conditions.

the manufacture of trimmings, naturally the problem leads to the finding of a place where land is cheaper and taxes are lower, yet near enough to the City to be sure of a large labor supply and the advantages of proximity to the raw material and the selling market. Paterson, New Jersey, a town of moderate size only seven miles from New York City is the place to be desired for the sew-(14) ing and ribben industry.

4. Massachusetts:- The silk industry was spread to Massachusetts, first was due to the enterprise and ingenuity of the manufacturers of that state. A number of clever ideas in preparing spool thread for the market made their product attractive to prospective buyers. At the same time some of the firms made and introduced to consumers measuring and strength-testing devices. Improvements in dyeing, making the thread stronger and purer, were introduced and widely advertised, which added greatly to the reputation of Massachusetts silk thread. Second factor is that due to plenty of (15) water power.

(13-15) Mason, The Silk Industry and the Tariff, pp 42-43.

5. Pennsylvania: - With introduction of automatic throwing machine, there was constantly less need for strong and skilled labor. Consequently women and cildren began displacing men at the throwing machines. Then the problem comes where those manufacturers can obtain a plentiful supply of the cheap unskilled labor they required. The coel regions of Pennsylvania seemed to offer advantages unexcelled by any other locality. The miners' wives and children were then practically unemployed, and could furnish an (16) abundant supply of cheap labor. The following statistics will show how much the silk industry center was moved to Pennsylvania.

(17)Silk Production in 1880 by Ptates. \$12,851,045 New Jersey 9,268,025 New York 5,438,075 Connecticut 3,4 1,093 Lassachusetts 2,858,165 Pennsylvania (18)Silk Production by States. 1905 1900

189019001900New Jersey\$30,700,000\$39,900,000\$42,800,000Pennsylvania19,200,00031,000,00039,200,000New York19,400,00012,700,00020,100,000

(16-18) Mason, The Silk Industry and the Tariff, pp 50, 44, 52.

From the production of silk goods by states in the year of 1005 we find out that Pennsylvania has grown to be the certer of silk industry in the United States because of women and child labor. Pennsylvania took t e second place in the production of silk goods and was very close to New Jersey who took the first. The production of the later years shows that Pennsylvania began at 1914 is the largest silk manufacturing state in the United States up to the present time.

Silk	Manufact	ures in th	e United St	ates by	States.
			(19)		(20)
	1000	1914	1910	1903	1925
Pennsylvania	\$62,061	386,009	\$231,711	\$286,073	\$229,121
New Jersev	65.430	75,706	215,051	183,389	190,712
New York	26,510	29,261	81,683	105,018	112,156
Connecticut	21.063	30,592	68,053	74,674	<i>55</i> ,200
Cossachusetts	3 8,942	10,677	34,194	33,647	86,000
	( In	thousands	of dollars	)	

(19) Fourteenth Census of the U.S., 1920, vol. X, pp 216. (20) Eignnial Census of Manufactures, 1925, pp 314.

## Chapter III

Production, Consumption, Importation, and Exportation of Raw Silk and Silk Lanufactures.

China is supposed to be the greatest raw silk producing country, because of lack of any adequate information, the amount of total production can not be obtained. Japan supplies more than half of raw silk which the United States imports and she is the leading raw silk exporting country. The United States is the largest consuming, importing, and manufacturing country of silks. The consumption of silk in the United States is about as much as the amount of production ( 27% of demestic production is consumed at home) or may be more because the amount imported is twice as much as exported. The average of the imports of silk goods is about \$30,000,000 and exports in recently years amount to \$15, 000,000. The total consumption will be the total amount of production in the United States and added to it the amount of \$15, 000,000 or a little more.

France is the leading source of United States imports of silk manufactures, its share in the trade increased from \$15,840,000 in 1926 to \$18,555,000 in 1927 or from 30% of the total importa-(1) tion of these commodities to 44%

In 1927 silk manufactures valued at \$15,000,000 were exported from the United States, of this total hosiery accounted for 20, 000,000, broad silks for \$3,000,000, and wearing apparel for \$2, 000,000. Four countries; Canada, Cuba, Australia, and Lexico, (2) were the largest markets for American silks.

(1) U. S. Department of Commerce, Commerce Reports, Je 18'28, p 726. (2) " " Ap 9'28, p 103.

TABLE I

World Production of Raw Silk for the Year Ending June 30, 1909 - 1921. in thousands of pounds (3)

Countries	1910-1914	1915	1916	1017	0.01			
T /	Show of the	1.1.	0111	1101	1910	6161	1920	1921
Japan	29,318	33,448	37,367	43,962	47.914	52 578	12 230	15140
China <sup>2</sup>	17,634	12,880	16.475	16612	15 200	0.000	40,400	740'64
1 12			-11:21	10011	107.01	14,474	19,278	12,379
ITaly	8,523	8.951	6,349	7,963	6.217	5012	1015	0002
1 ount3	5 0 2 2	1 0 0 0				7176	640'4	1,330
TCVUII	200%	3,435	2,293	2293	6622	2293	2203	1651
France	000					~ ~ ~ ~	111	400'I
11 1111	770	043	286	485	452	540	207	120
Auctura3					2	240	140	100
DIJICON	166	666	331	331	188	166	188	
Socio	100	1.7.1					100	
indo	100	101	121	198	154	165	151	011
India4	131	~				101	4/1	110
niniit	4/4	110	220	194	643	254	320	011
12tot	11220				2	トノコ	100	110
10101	04010	61,044	63,442	72,038	72.871	76577	75048	67213
							0	01:040

1 Calendar 2 Export only 3 Production For 1916 - 1920 estimated 4 Estimated

Some Great Commodities, pp. 161 (3) E. M. Miller,



(4) Commerce Year Book, 1928, Vol. II

TABLE III (5)

Imports of Raw Silk into the United States by the Principal Countries for the Fiscal Year from 1910 -17 and the Calendar Year 1918-21. In thousands of pounds.

Countries	5 yrs Average	1915	1916	1917	1918	6/6/	1920	1321
Japan	15592	18 271	21000					-
	2/ //-	11701	616,23	C6, 342	27075	33.727	22904	101 18
Chind	5,134	5,097	7,420	2002	5751	9099	5032	0587
Ttalv	2605	1120	1120	1		11 -11	7/1/2	100%
	k,000	110'7	040'2	197	9	1,866	1111	3085
France	020	50	201	(				0000
	500	)	121	36	4	50	23	686
Other Countries	238	56	6.3			)	)	000
	>>>>	2	20	11	62	62	70	503
lotal	23,799	26,031	33,071	33,869	32865	11811	30 DE B	
Po-ovnorts	100	200			100/21	110.74	OCN'NC	CCC'C+
Cindro-on	121	6/1	197	504	554	487	700	191
Net Imports	22 672	25050				101	111	404
	21017	00017	74.014	33,365	32,311	44,330	29259	44 811
							1 )~!!~	110/14

(5) E. M. Miller, Jome Great Commodities, pp.171.

# (6) Table IV

	Imports of Unamuf	actured Silks.
	*14	
Yearly aver	age antity	Value
	1,000 pound	S. 1.000 dollars.
1871-80 *2*	1,340 T	6.390
188 <b>1-</b> 90	5,328	16,775
1891-1900	9,259	26.843
1901-05	13,798	45,968
1906-10	20,201	67 114
1017-15	30,190	
1916-20	45.64]	235 349
1921-25	62,030	256,287
1920	39 66 <b>0</b>	
1921	52 532	901,000 964 7907
1922	50.407	
1923	6].954	401 600
1934	60,603	
1925	76.795	
1926	77.656	
1927	86.344	
	,	

\*1\* Fiscal year to 1915 inclusive, Calendar years thereafter. \*2\* Figures represent raw silk only.

# (7) Table V

Silk Price	Per Pound.
(yearly	average)
1914	J <b>4</b> .10
1916	5.50
1917	6.43
1018	7.33
1919	0.42
1020	9.24
1921	6.11
1922	7.29
1922	8.18
1024	6.65
1925	6.47
1926	6.22
1927	5.48

(6) Commerce Year Book, 1928, vol. I, pp 518.(7) Loody's Industrial, 1928.

# Table VI

Production of Silk Manufactures in the United States.

1870	\$ 12,700,000
1874	13,200,000
187 <b>5</b>	21,300,000
1876	21,200,000
1880	28,500,000
1899	107,256,258
1909	196,911,067
1914	254,011,257
1919	688,469,523
1921	583,418,756
1923	761,302,119
(9) 1925	808,979,399

(8) Mason, The Silk Industry and the Tariff, pp 21

(9) Commerce Year Book, 1928, vol. I, pp 512.

TABLE VII (10) Import & Export of Silk Manufactures In million of dollars



(10) Commercial Year Book, 1928 Vol. 1 pp. 517-518.

Yearly Average	Imports(z)	Exports
or year(i)		
1871-80	\$27,063	53
1881-90	34,162	83
1891-1900	29,775	268
1901-1905	32,215	425
1906-1910	33,725	835
1911 - 1915	28,306	2,210
1916 - 1920	47,121	1,6,735
1921-1925	40,941	12,992
1920	75,419	26,821
1921	48,276	9,672
1922	37,4/3	11,824
1923	44,597	11,136
192 <b>4</b>	37,699	14,148
1925	36,719	18,182
1926	40,570	17.788
1927	42,158	15,298

- (1) Fiscal years to 1915 inclusive, Calendar years thereafter.
- (2) Imports of rayon are included in total of silk manufactures prior to 1917.

(11) Commercial Year Book, 1928 Vol. 1 pp. 517-518.
(21)	
7	-
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Imports of silk manufactures into the United States by principal countries for the fiscal years 1910-1917 and calendor years 1918 to 1921 (in thousands of dollars).

Countries	1910-14	1915	1916	1917	1918	1919	1920	1261
France	\$14,662	\$11,286	\$16,865	\$17,240	\$6,596	\$13,689	\$19,492	\$15,517
Germany	4.392	2.654	187	(1)	}	20	1,716	1,032
Switzerland	3,433	2.556	2,830	3,883	3,548	4.393	9,420	3,805
landen	1128	4,908	6.760	11,569	14.698	31,813	35,359	21,213
United Kingdom	2647	1664	2.429	3,765	1,549	2,993	4.793	2,756
Trake	798	1,022	843	1,870	655	657	1,654	1,335
Chind	247	450	896	1,765	1,098	786	1,765	1.961
Child	180	176	102	182	311	325	1,239	630
Total	29,870	25,043	31,912	40.323	28.455	54,676	75,420	48.249

(i) Less than \$ 1000 (iz) E. M. Miller, Some Great Commodities, pp.179

#### Chapter IV

Silk Industry in the United States and its Tariff. I. The Problem of Raw Silk and its Tariff.

The most serious problem for American silk manufacturers to solve is how to get the kind of silk thread which can stand the processes of power machinery. The silk thread must be strong, and uniform in thickness. In the early days, the raw silk supplied by the foreign countries was mainly for hand weaving and not fitted for power machines. Naturally the first step of improvements was for the manufacturers to invent the better mashines for reeling, then send them abroad to the silk producing countries to use them for producing a strong and uniform silk thread. Due to the slowness of the Chinese to adopt the reeling machines, then the American silk nanufacturers turned to other countries for better material, Japan was so ambitious to capture the silk trade, she answered the demand. In 1873 the United States imported \$240,000 of ray silk from Japan which was increased to \$4,371,886 in 1877; China on the other hand, decreased from \$4,386,523 to \$233, 390 in the (1)same period.

Due to the hurriedness of producing such enormous amounts of silk in Japan, Japan failed to maintain the standard quality which the manufacturers required; and Chinese silk is always cheaper than the Japanese; further more such enourmous depend for silk is far beyond the Japanese capacity to produce at that period; therefore in the later part of the Nimetcenth Century a considerable amount of raw silk was imported from China again. The amount in (2) average was equal to the Japanese exports of raw silk. (1-2) Mason, The Silk Industry and the Tariff, pp 20,23.

The years from 1880 to 1884 marked the beginning of several changes in the factors of the consumption of raw silk in the United States. The difficulties experienced with both sources of supply from the Orient naturally turned the eyes of the manufacturers to the European supplies. In 1887 the imported raw silk from France (3) and Italy amounted to \$1,740,000 and \$4,622,000 respectively.

The proportion of raw silk imported from different countries to the United States had remained fairly uniform before the War, at about one fourth of the total imports from Europe, a little more than a half from Japan and a little less than a quarter came (4) from China.

During the War the European sources were cut off, and the supply of raw silk was mainly come from the Orient. Even after the War, the tendency of silk supply is increased in the Orient and especially Japan, while the European countries tend to decline every year. At present time Japan supplies two third of the raw silk for the United States, China about one fifth, and the rest is im-(5) ported from the European countries.

The United States is no longer depended upon the other countries for silk goods, but the silk industry itself is entirely depended on the supply of raw silk, and the Unitel States does not produce any considerable amount by herself. From this point of view the silk industry in the United States is not an independent industry.

(3,4) Mason, The Silk Industry and the Tariff, pp 28, 30. (5) Table III.

The early efforts had been attempted, as to the bounties given to the producers, or even a 15% of duty was levied in the years (6) before 1857 proved to be unsuccessful. The facts are that the raising and recline of cocoons can be done only when the American labor is as low as the other silk producing countries or the duty on raw silk should be raised to a thousand per cent or more. wither way can not be practically applied because the standard of American labor can not be lowered and the 1000 per cent of duty will close down all the American silk factories. In such a case, the American silk industry will have to depend upon the foreign countries to the end for her raw silk.

The national defense argument for the protection of the American silk industry is entirely defeated in the case of raw silk supply, because the protection of silk industry is for the benefit of a few but burdens the whole public. Yet the industry itself can never become independent in the sense required by national defense even if the silk is a product necessary for war supply. With almost a hundred years of protection, the industry itself fundamentally has to depend upon the foreign countries for raw silk.

It might be a possible thing at present for some part of the United States to raise raw silk, if sufficient aid is given. It is claimed by Guy Wilkinson, President of the Seriterre Co., Orovile, California, the the best silk in the world can be produced in California. And that silk production in California can be made an eminently successful industry, independent of outside

(6) Mason, The Silk Industry, pp 36.

competition and without tariff protection. His views are the result of six years' of time devoted wholly to the production of cocoons and raw silk on a small scale. He asserts that he can make silk under 05 per pound, and believes, exclusive of overhead, (7)production costs will not exceed 33.50. If Mr. Wilkinson's claim is true then the possibility of raising raw silk in California is very hopeful.

We suppose that Mr. Wilkinson's statement is some what too exaggerated and assume that the row silk industry does need some kind of aid at the beginning. What will be the result if 15% or 20% of a duty was levied upon raw silk imported? Consequently within a few years, California will be a great silk producing state and will supply a considerable amount of home consumption. It will be a heavy burden for the silk manufacturers to bear immediately the first few years after the 15% or 20% of a duty is levied on raw silk imported if the duty can not **be** shifted.

If the burden imposed upon the public for the support of the silk industry is justified, why should not the manufacturers bear the burden for the support of raw silk industry.

My conclusion on the problem of raw silk; it is that the silk industry will have to depend upon the foreign country for raw silk as long as the manufacturers want to produce silk goods. Second, if the national defense principle is sound and **p**ustified, there is a possible way to raise raw silk in the United States by governmental aid. Thirdly, if the national defense principle is invalid because at present time it is impossible for nation to close her door, then let those people in the foreign countries produce those

things which they are most fitted, and let the American meeple do the same thing.

II. The rates of duty imposed by the various acts and their results.

"The protective principle was introduced in 1316, it was expanded and strengthened until 1828, after which rates were gradually lowered until the outbreak of the Civil War and then again raised. Since that time rates have never returned to the level of the middle of the last century. Under the present law, enacted in 1922, (8) the rates are the highest in our history." This short quotation gives us a general idea of the history of the American tariff policy. Now let us go to the detail of the different acts in regard to the rates of duty imposed on silk.

1. The Acts of 1864 to 1883:

" The Fariff Act of 1864, which imposed a duty of 60 per cent on silk goods; was instituted entirely for purposes of revenue. The absence of any protective sentiment is proven by the fact that sewing silks, twists, and spun silks, which alone constituted the items of domestic manufacture at that time, were set in 1864 at 40 per cent and 35 per cent, simply as an article less calcu-(9) lated to yield a satisfactory revenue if put at a high rate." After the Civil War was over, naturally, the rate should have been reduced, but another factor came in to the problem of reduction that due to high Civil War tariff a new industry had been started and whose very life depended on a continuance of the high duties. Conceptently, the tariff act of 1983, as might have been expected, had a reduction in the rotes, but a reduction of so slight a nature

as not materially to have the principle of protection. The general Ad Valorem rate on silks was reduced from 60 to 50 per cent. The industry was growing so rapidly in eighties, so there was no complaint against the reduction, and naturally the price is lower than before. The only complaint was that Ad Valorem system which was used in the levying of duties on silk was subject to many cericus evils of evasion. Therefore the movement for a specific duty was started. As both of the two systems are subjected to some kind of evils of evasion, the only consequence for it was to use both of them and applied the one which is most fittel for certain goods.

2. The Act of 1890.

In the back of this act is the fact that the kepublicans and silk manufacturers stood for specific schedule; the Democrats and the conservative element in the Senate were handed together to uphold the Ad Valorem system. In whole bill as presented by the House, the duties on different kinds of silk were raised to a considerable degree in average some what over 60 per cent. In the case of pile favries, due to the influence of J. & J. Dobson Co., who were the sole beneficiaries of the new rates, were given a duty that would raise the rate on them from 120 to 134 per cent, according to their prevailing prices. On the passage of the bill in the House, the J. & J. Dobson Co. raised their prices 10 to

(7) Titoner Direct 70.50 Gend 1 1000

- (7) Literary Digest, 78:58 Sept. 1, 1923.
- (8) Patterson, As Econoist Faces the Tariff, Independent, May, 1926.
- (9) Mason, The Silk Industry, pp 56.

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(10) 25 per ent. The House Ell was cut out deliberately by the Senate, every single duty in its elaborate specific silk schedule was reduced to the previous rate, 50 per cent Ad valorem. The Bill came out from the Conference Committee with all the important items as the Senate had left them, but its pile fabrics schedule showed (11) the powerful influence of Mr Dobson and his friends,

In 1897 there was abundance of evidences that a large propertion of manufacturers were satisfied with the existing duties, and (12) were surprised the rates have been raised. Their testimonies were that 50 per cent was sufficient. This shows that the congress during the control of the protectionists frequently seems to have given domestic producers more than they asked for, and admittedly more than was necessary to keep the industry on its feet. This in turn shows that turiff schedule was drawn up by the House for the benefit of the few influential persons who made the public to bear the heavy burden a burden in fact which was not needed by the majority of the manufacturers.

The Act of 1890 shows a marked extension of the protective system, more than what the manufacturers needed.

3. The wilson Bill of 1804.

The Democrats came to the power in 1894, it was natural then that the party of free trade should look eagerly forward to the repeal of the obnoxious act of 1890. The rates were from 40 to 50 among different kinds of silk. Because of the high tariff on pile fabrics, this line of industry naturally increased abnormally, and then the crisis came, evidently, from this example,

to give a young industry too much protection is to spell its ruin. The high tariff is followed by high prices and big profits, competition then sets in, prices are lowered, and worse still, the goods become cheaper and trashier until the whole industry falls (13) into discredit.

The Act of 1894, the percentage of duty on silk may be considered as having answered the need of the manufacturers, even it is lower than the previous acts, because they claimed that 45 per cent to 50 per cent were sufficient.

4. The Dingley Tariff of 1897.

The business depression of 1897, the blame naturally fell on the low tariff of 1894, and consequently the tariff bill of 1897, passed by both the House and Senate, embodied in the main the idea of the advocates of high protection. In the bill all the important items had been switched over from the simple Ad Valoren to a complicated specific system. Due to a deficit in the treasury and consequent need of an increase in the revenue, the rates of duty were raised in many cases with little regard to the needd of the protected industry, or even of the wishes of a majority of its representatives. The schedule on silks was so framed that those on cheap silk goods were levied excessively in comparison with those on high quality silks. An illustration as showed by Senator Jones of Arkansas, that some wild Chinese silk cloth only worth eight cents a yard, weight per yard is 4 oz. and duty per yard is

(10)13) Mason, The Silk Industry and The Tariff, pp 68, 70, 77.

62<sup>±</sup> cents, a 770 per cent of duty was levied.

Following the Act of 1897 there were a great increase in consumption and production of silk goods in the United States, byt its imports stayed statiojary. The recent imported silk goods have tended more and more to run to costlier and finer silks, heavy chasubles, and draperies of exquisite workmanship. These goods which the American manufacturers do not care to produce. In the specific system of the Act of 1897 lower grade silk was entirely prohibited, because they were levied upon by a dyty of so e what near 200 per cent. The goods paying the highest proportion of duties are of the smallest value per piece or the poorest quality.

(14)

5. The Act of 1909;

The old rates of the Dingley Act were accepted and passed by the Lower House. It went through the Senate without much changes. In the spun silk the rate was changed from 37 per cent Ad Valotem to specific amount, its Ad valorem equilibrium is about 50 per cent. It is significant that the chief manufacturer of these fabrics was the Chairman of the Revenue Laws Committee which prepared the schedule. Sewing silk and thrown silk were changed from the previous 30 per cent Ad valorem to a specific duty, which is about (L5) 58 per cent,

The rates on pile fabrics and handkerchiefs were lowered, The silk rates have been widely considered as the most conspicuous ex-(14,15) Mason, The Silk Industry, pp 91, 105.

ample in the act of 1909 of general increase of duties applied (16) over an entire schedule.

The tendency is to increase the amount of protection in the direction of those industries which suffer more or less from competition with similar foreign products, and reduction to the noncompetition articles of the very expensive variety.

6. The Acts of 1913 and 1922.

The Democrats was in power again in 1913 and while Republicans got back in 1922, the tariff policy of these acts can be easily understand. Comparison of the following rates of duty ( Table X ) among the acts of 1909, 1913, and 1922 will show us that the 1913 was the lowest among the three and 1922 was the highest among all. The high rates given to silk industry in 1922 looks like that silk industry become younger every day so it needs more and more protection. But in fact the silk industry in the United States had passed the age of infancy long time ago.

To make the conclusion of the history of the rates of duty on silks and their effects in brief, the writer sums them up in the following outline form:

a. The protective thriff on silks after the Civil War was framed by the influences of a few large manufacturers.

b. Civil war tariff was framed for revenue.

0. Protectionists carry the protective tariff too for, more than
(16) Mason, The Silk Industry, pp 108.

## Table X

Para-	Classification	Rates of Duty		
graph	C/QSS//CQ/10//	1922	1909	1913
1201	Silk partially	<i>35 %</i>	35%	20¢ per lb.
	manufactured			
1206	Hatter's plush	60%	10%	10%
1206	Velvet	60%	not less than 45%	50%
			50.00	1
1207	Fabrics with	35%	30%	45%
}	tast eages			
1208	Knit Fabrics	55%	50%	45%
1209	Handkerchiefs			
	I. Hemmed	60%	50%	40%
	2. Hemstiched	60%	60%	50%
	3. Not Hemmed	55%	50%	40%
			} 	
1210	Clothing	60%	60%	50%
1211	all other manua	60%	50%	150/
	facture of silk	00 70	50 10	45 10
1213	Artificial Silk	10%	10%	10 %
	vaste			

"Schedule 17" " Silk and Silk Goods (17)

(1) Part of the schedule.

(17) Clayton F. Moore, Comparison of Tariff Acts of 1909, 1913 and 1922, page 96.

the manufacturers' needs.

- d. Poor grade of goods pays more than the high quality goods, so those people who can not afford to buy high grade silk bear the heavier burden.
- e. Protective tariff was framed without the consideration of the public welfare.
- f. With the alternative changes of low and high tariff, but the imports of silk goods stayed stationary. This show that tariff is in a nature of entire prohibition that those imported are only those that are not competitive to those of domestic production.
- III. Silk Industry has passed the age of infancy.

The United States is the greatest manufacturing nation in the world at present time. The strength of the American manufacturing industry is proved by the enormous exports of manufactured goods. These are sold at a profit in what are called neutral markets, where they must overcome the competition of similar European goods. If they can overcome the competition in neutral markets, after transportation charges have been added to the original cost, can they not defy the same competition here at home, even eithout protection, where the handicap of ocean freight charges is in (18) their favor? The strength of the American manufacturing industry is shown in the following table on next page.

We admit without any doubts that the United States is the greatest manufacturing nation, now let us go the silk industry alone.

(18) The Independent, July 13, 1914p vol. 79 pp 583.





(20) The Tariff Review - February, 1928.

Silk manufactures in 1914 were six time as much in value as in 1879; cotton goods three and one half times as much; and woolens only twice as much as in 1879, these figures being in all cases (19) factory valuations of out-turn, supplied by the census reports.

The silk industries in the United States, it says, are now turning out products valued at approximately \$800,000,000 in 1925, against \$100,000,000 in 1900, and \$250,000,000 a year at the beginning of the War. Equally interesting is the growth in the exportation of silk which in 1900 amounted to only a quarter of million dollars, and in 1918 was approximately \$20,000,000. The silk manufactures are exported from the United States to all part of the world, the 1917 record showing exports to more than (21) seventy countries. The per cent of increase of silk manufactures (22) may be shown in the following:

1899-1904	28.07
1904 <b>-</b> 1009	55.2
1909-1914	22.9
1914-1919	173.8

With such increase of production, and exportation, its only conclusion is that the industry has been well established and no more protective tariff is needed.

(19) Literary Digest, Ap. 27, 1918, vol. 57 p 96. (21) " " 5, 1919, " 61, pp 146. (22) Fourteenth Census of the U. S., 1920, vol. X pp 216.

#### Chapter V

The Relation of Tariff with Different Branches of Silk Godds. At the present time the silk industry in the United States reaches a position that there is not any kind of foreign silk goods which can compete with the American products except those fancy materials which required mostly hand work and only small quantity is produced. Automatic throwing machines and power locms are the most efficient machines in comparison with the machines used by the other countries in the silk industry. The cost of production, due to the efficiency of power machinary and introduction of women and child labor in the silk industry, is lower in the United States than anywhere else in the world.

The silk goods imported to the United States are the kind which the American manufacturers do not produce or do not care to produce. A protective tariff on such goods is not justified because it does not give any protection to the silk industry any way. As to those goods which the American manufacturers care to produce and produce in big quantity, in these groups of goods no other nation can compete with the United States. " high tariff on these groups of silk goods is absolutely unjust because the government discriminates against her own citizens for the reason that the foreigners in the foreign countries can buy the American goods cheaper than the American themselves in their own country.

In this chapter the different branches of silk industry will be discussed separately and the aim is to find out whether these need any longer protection or not.

1. Throwing and sewing silk, twist, floss, etc.

Throwing silk is a yarn made from raw silk by doubling and twisting or by twisting only. The introduction of new automatic throwing machines in 1890 marked the industry had passed the infant age. The throwing industry is now in a position independent of the tariff and not afraid of foreign competition. The average cost of throwing is now from 60 to 70 cents per pound as against (1) 34.50 before the invention of automatic machines. Imports of thrown silk have long formed an unimportant proportion of domestic con-(2) sumption less than  $\frac{1}{2}$  of 1,5 of domestic production.

Sewing silk is a thread made by winding and doubling silk, giving it a hard twist, and doubling and twisting again in reverse direction under a strong tension, it is used for hand sewing. Twist is a thread of two ply, it is used for both machine and hand sewing, principally the former. Floss silk is a variety of embroidery silk composed of a large number of singles loosely twisted together. Silk thread production is the oldest branch of the domestic industry, it has long supplied the bulk of the domestic needs. Silk thread receives no foreign competition but recently has been stendily superseded by cotton thread, mercerized (3) and unmercerized. In 1910 imports were about 2.3,3 of domestic production. Since then imports have, except in 1920, been a fraction of 1,3 of it. Export is not separately reported until 1922, when they amounted to only \$695,229, have in recent years pro-

(1) Mason, The Silk Industry, pp 117. (2-3) Dictionary of Tariff Information, pp 670, 671.

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bably exceeded imports. With such a favorable situation for sewing industry yet the rate of duty was increased from 150 in 1922 to 40% in 1923. Canadian statistics for the fiscal year ended March 31, 1921, recorded imports from the United States valued (4)at \$407,313, as compared with imports from the United Kingdom valued at only \$173,026. The fact shows that the English sewing silk can not compete with the American's even in her own Dominion. What is the logical reason for the United States to increase the rate from 15 to 40 per cent in 1923? 2. Broad silks.

The American silk weaving industry is the largest in the world, its output at least equals that of all European countries combined, and probably more than double that of Japan, From the Civil War until the World War the trend of imports was downward; from 1914 to 1921 it was upward; in 1922 and 1923 it was again downward.

Broad silk from European countries are chiefly plain and fancy, metal-thread goods and high grade all-silk fabrics of novel or elaborate designs. These as a rule, are sold in extremely small quantities on the basis of quality. Goeds from Japan and China are cheap. The import from China consists almost exclusively of pongees; that from Japan of habutae and pongees. In 1914, 1919, and 1921 they were in value, exclusive of duty, about 7.2% of domestic production. During the War the exporting trade expanded rapidly, enlarged warkets being found in Canada, Cuba, and South

(4-5) Dictionary of Tariff Information, pp 670, 666.

America and to a limited extent in Europe. Since the War this export has been reduced by more than a half, but it is still considerably above the pre-war level. Here is an example that only those goods either required a great deal of hand labor or those that are so poor in quality which the American manufacturers do not care to make are imported, yet a high duty is levied. (6)

In the tariff classification 1922 includes silk wearing apparel of every description not especially provided for. Articles specially provided for are garters, suspenders, braces, and other manufactures of narrow wares, knit goods, handkerchiefs, and apparel ornamented with lace, embroidery and so forth. In regard to its production, all but a small percentage of the domestic consumption of silk wearing apparel is made in the United States.

Imports in 1914 were value at \$2,607,596; but decreased during the War in 1918 \$355,028, and upward again after the War to \$2,074,279 in 1920, \$1,968,752 in 1923. As to the exports, a considerable export trade was built up during the War and after the War the export was almost equal to import.

	Exports	of	Clothin:
1918	3		3 3,634,916
1920	)		11,224,087
1922	2		1,082,555
1923	3		1,672,873

(7) 4. Handkerchiefs.

(6-7) Dictionary of Tariff Information, pp 667.

Handkerchiefs may be woven in the loom, two or three to the brendth, and then cut and finished; or they may be cut from silk cloth and hemmed or hemstitched, ironed, folded and boxed for the trade. The material is chiefly Habutae, a pure, soft, plain-wover, unthrown, washable silk. Crebe de Chine, a cloth of domestic manufacture is also extensively used. The monufacture of silk handkerchiefs is carried on in conjunction with the canufacture of broad silks or of other kinds of handkerchiefs. Production is small and varies with demand, imports supply the larger mart of the donestic narket. Proor to 1916 import values of slik hand-Merchiefs remained fairly stationary, between \$300,000 and \$400, 000 a year despite reduced duties in 1913 on the principal type. Japan is the chief source supplyin over 90% of the total imports. This is the case where such kind material is pure, soft, unthrown which is not fitted for machinery production, therefore the most part of the domestic consumption is imported. The demand for is is so stable that even in low tariff does not increase the amount of importation at all.

5. Knit Goods.

They include knit fabrics in the piece an knit wearing apparel of all types, whether made from knit cloth or knitted into the finished form.

The total production of silk knit goods increased from a value of \$41,262,000 in 1914 to \$92,754,206 in 1921. The items which constituted the total in 1921 were hosiery valued at \$44,235,842;

(8) Dictionary of Tariff Information, pp 666

under-wear, \$10,000,411; outer-wear, \$26,585,110; and knitted cloth, \$11,932,843.

Imports of knit goods was only a small amount in comparison with our export, it is about one tenth of our exports. The amounts imported since 1914 are as follows:

#### Imports of knit goods:

Year	Value	Duty rate
1914	\$181,135	50;3
1918	14,249	ĨĨ
1919	63,039	TT
1920	146,269	11
1921	221.117	11
1922	330,624	T
19:12	161.839	60%
1953	398,013	ท่

Exports were not recorded until 1922 and then only for hosiery, in that year they amount to \$3,368,542, and in 1923 \$4,399,038. (9) 6. Lanufactures of n. s. p. f.

The principal items under this general classification are upholstery and made-up articles other than wearing apparel, composed wholly or in chief of stilk. For the years 1910-13 the average annual imports of silk manufactures not specifically provided for were value at 3548,791. In 1914 they amounted to 31,090,411, imports in later years stay stationary. (10)

7. Pile Fabrics.

Pile fabrics include cloths and ribbons composed of a woven ground of silk or other material more or less completely concealed by a covering of sh rt silk threads, or pile, which project from it as cut ends or in a few fabrics, as loops. Im the

(9-10) Dictionary of Variff Information, pp 068.

United States silk pile fabrics as a rule made with cotton back or ground and spun-silk pile.

Imports of pile fabrics are mainly fine all-silk velvets, produced only to limited extent in the United States; high grade figured specialties, which American Tirus generally do not produce. The average annual import of all types af silk pile fabrics in the 30 years ended june 30, 1920 was valued at \$2,496,817. One interesting thing to be noticed is that during the low tariff the annual import was about from \$2,000,000 to \$2,500,000; but it is increased during the high tariff in 1923, the amount was \$6,567, 325. This shows tariff does not affect tertain kind of goods which we no not produce in this country, its import depends on the demand entirely. Ther is certain kind of pile fabrics can be produced quantitively is exported to the amount of \$203,424 in 1922, and \$305,916 in 1923.

As to the small wares and ribbonsm changes in fashion largely account for variations in imports, which consist mainly of extreme noveltics, in which the element of hand labor is exceptional high, These are required in quantities so shall that American manufacturers do not care to concern themselves with their production. Imports are for the most part supplementory rather than competitive. Even in such a situation the export is almost equal to (11) the import.

(12) 8. Spun silk, or schappe yarn.

It is manufactured from waste silk by a series of highly tech-(011-12) Dictionary of Tariaf Information, pp 670, 671.

nical processes, chiefly deumming, dressing, drawing, roving, and spinning. Imports of spun silks, which in recent years have supplied less than one-third of the consumption, are used chiefly in the manufacture of velvets.

Before the War this type of yarn was not produced in this country, but recently donestic spinners have to a limited extent, undertaking its production. This branch of the domestic industry is, however, not yet entirely out of the experimental stage.

From the above separate analysis of different branches of silk goods in regard to its relation with tariff, we find out that most of the silk industries are in the position of self-support, and would be unaffected by the abolition of the present duty except the spun silk industry, but it is not an important branch of the silk industry anyhow.

#### Chapter VI

The Growth of Silk Industry in the United States Depends upon Many Other Causes Deside the Tariff.

It is undoubtly that the silk industry is a product of the high Givil War tariff and the continuance of high protective tariff since then. But in fact the high tariff is not the only cause of the growth of the silk industry in the United States. Without the following factors; sufficient amount of capital to finance the industry, efficient form of factory system, introduction of automatic power machi e together with high paid labor replaced by women and child labor, better grade of raw silk supplied by Japan, and the rise of a mass demand for staple broad silk of all grades and type, the history of silk industry in the United States would not be the same as we know today. Let us consider these factors semicately and see how important these factors are in comparison with tariff.

1. The efficiency of the American factory system.

The first step for the American products to compete with foreign products is to produce sole thing which can be produced in a huge quantity. The American factory is frailed for big scale production. The backbone of the factory system is that it needs enormous capital, good management, labor saving machinery, without these things no factory can be established. As the problem of capital, it will be a serious thing for the poor countries to worry about. But as to the United States, she is the richest nation in the world, any amount of capital can be easily raised for any kind of industry.

Take a country like China for instance, there is a great many people trying to industrialize her, but always met with the problem of lack of capital. Of course there are amny other reasons why China can not be easily industrialized, but nerenthless the lack of enough capital is the most serious thing.

With more than a centry of experiences of industrialization, and the rapid development of the science of modern business administration, America produces best and largest amount of able business exceptives. At present time American capital and men of business ability are spread through out the whole world.

America is not the first one who invents the modern power machinery, but today America invents more machines than any other country in the world. Expecially in the silk industry, there is no better machines hade in other countries that can compare with those made in the United States.

Proved by the following facts, we will find out how adequate the American machinery is in the textile industry and how cheap the labor cost is. "Two cents per dozen paris for kniting and \$3.00 per day wage on the piece basis, the total labor cost from raw cotton to finishe' sock is 2 cents per pair; the lowest wages in the world, and the highest weekly earnings paid than any horiery (1) people in the world." " A single operator runs from 20 to 30 of the newest type machine knitting women's silk hose and producing a total of 80 to 90 dozen pairs daily. At 4 cents per dozen pairs, (1) The Tariff, Fair Tariff League, 1922.

or one#third of one cent per pair, she would earn \$3.00 per day, (2) almost no cost and a high wage."

If the above statements are true, no matter how cheap are the Oriental and European labor it can never expect to compete with the American labor.

2. The purchasin power of the American consumers.

That the American standard of living is the highest in the world is universally accepted. Any common labor, if he is working steadily can afford to buy most these things as automobile, radio etc., that are regarded as extreme luxuries among the people all over the world. Since the silk goods produced in the United States are entirely (07,3 of domestic production) for home consumption, without such great purchasing power of the American public in general the silk industry in the United States would not have grown so big no matter how high the tariff is.

The high purchasing power of the American public is due to the productivity of the American labor and enormous amogint of retural resources. High productivity of labor is the result of the American factory system and enormous amount of natural resources are gifts a new developed country. These two factors are the fundamental sources of American national wealth, and the American public is entitled to it. Any devise which try to benefit a few people by putting the burden on the general public because they can pay it are or because there/plenty of natural resources is a crime.

(2) The Tariff, Fair Tariff League, 1922.

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3. The problem of transportation and market in relation to silk industry.

Distance of market a d cost of transportation are the main causes of the localization among different industries. They explain why all those bulky industries as meat packing, flour mills, cotton mill, and so forth are moving towird the direction where the raw materials are; and why those industries, which the products are not bulky, are centered in the New England States.

Silk as an American industry entirely depends upon foreign countries for naw material, the transportation problem of raw silk containly will hinder its development to some extent if the problem come up to those people who are not familiar with the nature of raw silk. Naw silk is not a bulky material, or at least it is not more bulky than its finished products. With less in surance charges, less packing charges, subject to damage during the period of transportation is much less because it is cheaper and never out of fashion as some kind of finished goods are. With all these advantages, the problem of raw silk transportation can be neglected.

United States is the largest silk consuming country in the world, the advantage of its proximity to the market explains why silk industry is developed so fast in the United States to some extent. 4. Silk is regarded as a necessity at present time.

A few decades ago, silk dresses or stocking and so forth are regarded as luxury, but now it is entirely different. In fact it

is more than such necessities as sugar and coffee. Women now a dats are willing to cut down their grocery expenses, but they can not get along without silk dresses and silk hosiery, and men can not get along without silk neck ties or socks. It is due to the changes of the public demand for silk that makes the silk industry in the United States become a stable industry much less affected by business degression than the other industries in general.

We see from tables IV, VI, and VII that the importation of raw silk has increased steadily, the production of finished goods has increased in the same manner as raw silk, and the importation of silk manufactures stays stationary without much increasing or reduction. Silk industry in general is never affected by business depression as serious as others.

Silk industry in the United States was statted by the stimulation of high Civil War tariff, but its success is due largely the above factors, which are more important then the tariff.

#### Chapter VII

Artificial Silk in Relation to Natural Silk.

The problem of artificial silk and its effects on **na**tural silk can be easily solved if we can make a decision as to whether it is a sumplementary or a connetitive commodity in its relation to natural silk. If it is a supplementary commodity, then it will not affect the demand for natural silk at all. If it is a competitive commodity, then the domand for natural silk will be greatly decreased.

Artificial silk comes between natural silk and cotton. Its quality is lower than natural silk but in some respect higher than cotton. Its value is cheaper than natural silk but some what higher than cotton. It is a commodity for those who can not afford to buy natural silk yet their desire will not be satisfied without the luxury of silk. If it is a commodity in such a nature, then it is a supplementary commodity.

On the other hand the American people, as a majority of them, are buying for locks and not for wear. One pound of artificial silk is worth \$1.75 while natural silk is worth more than \$5.00. it is three times cheaper than the natural silk. If the American people were buying for looks, why should they pay such a high price for natural silk while artificial silk looks just as good as real one. Suppose this is the case then artificial silk is a competitive commodity and it will give a big blow to the natural silk.

The above statements are just a kind of reasoning, now let us Set into the facts. The following tables will give us the general

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# TABLE XI (") Production of Consumption of Artificial Silk in the U.S. 1911-1922 In million of Pounds



---- Consumption in U.S. ----- Production in U.S.

1) L. D. May 26, 1923

TABLE XII (2) World's Output of Artificial Silk in Pounds

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1891	30,000
1902	5,000,000
1910	18,000,000
1912	20,000,000
1914	26,000,000
1918	35,000,000
1919	40,000,000
1920	50,000,000
1921	65,000,000
1922	79,000,000
1923	97,000,000
1924	141,000,000
1925	173,000,000
1926	235,000,000
1927	280.000,000

(2) The Artificial silk Hand Book, Compiled by the "Silk Journal" pp. 38 idea of the growth of artificial silk in the world. (2) Table XIII

Production of Artificial Silk in the United States.

Year	pounds
1922	23,500,000
1924	38,750,000
1925	51,000,000
1926	63,000,000
1927	74,000,000

The tables VI, IV, and VII in Chapter III show that since the rapidly growth of artificial silk in recent years, the percentage of increasing both in raw silk and silk goods are much higher than before. This exidence shows that the artificial silk does not affect the demand of natural silk to much extent. Another of fact shows that the world production/artificial silk in 1927 (280,000,000 pounds) is three times as much as natural silk (100,000,000 pounds), if the demand for natural silk has been replaced by artificial silk that means that all the natural silk industry should be closed entirely. 280,000,000 pounds of artificial silk naturally will take all the demand for natural silk away.

The reason for this situation is that a new demand is developed for the artificial silk and which is supplementary to the demand for natural silk. The old demand for natural silk is a demand for quality and wear and not for looks only

(3) The Artificial Silk Hand Book, pp 38.

### Chapter VIII

The Effects of Tariff on Silk Goods

Among Different Groups of People.

In talking of the effects of twriff on silks among different groups of people, we will find out that due to their resticular interests, there are alway some conflicts between tem. A high tariff in the United States will curtail the imports from the other countries temporally, consequently it will affect foreign producers to that extent if they eith r can not find any other market for their surplus products or can not decrease their output. On the other hand, the Arer can producers will increase their output because they can sell them at a profit right after the high tariff is put into effect, the drift will be shifted to the consumers if the decand is inelestic. In the mean time the importers bear a loss because the imports business is dcreased.

If the above case applied to the silk industry, then there are the opposite intersts between the domestic and foreign producers, domestic producers and importors, demestic producers and consumers. In this chapter we will discuss the effects of tariff on silks among different groups of people separately; the producers, the importers, the consumers, laborm and farters.

1. Manufacturers.

The effects on manufacturers may be different among different lines of silk industry; in the sewing silk industry, the abolition of tariff would not affect them at all; while in spun silk industry, it might stops the output of spun silk entirely. It
might be different again among those who produce mainly for domestic consumption and those who produce mainly for export. Further more it might be different among those who make too much profit and those who just make enough profit or less, as the case of J. & J. Dobson Company which indicates an abnormal raise of duty might ruin that branch of industry seriously.

An industry which is well established on the position of independence, as most branches of the silk industry are, yet still protected by a high tariff; those industries naturally net more profit than they cught to have; and the consumers pay too much which they do not need to pay. Think one step deeper, a high tariff means a high price, but it does not necessary mean more profit for the canofacturers. It might be more profitable for the manufacturers if they can produce in a larger quantity and sell them cheaper, suppose the cost of production per unit is decreasing and the demand will be increased by the lower price.

Take another case like the spun silk industry, this branch of silk industry is recently established and still in the experienmental stage, it will be a big bhow if the duty on spun silk is suddenly abolished. If we think differently, suppose the spun silk industry was ruined by the abolition of tariff, it might lead those manufacturers to invent some new machinery in that line of industry in order to compete with foreign producers on the basis of low cost of production and not depends upon the tariff.

In the hosicry branch of silk industry, one-fourth of the domestic product is exported to the foreign countries and its future is with great possibility of expansion. Based on the principle of balance of trade, the more you imported the more you will export, in a long run the imports and exports will be balanced. The abolition of duty on silk goods might increase the imports of certain silk goods, and in the mean time the exports of a certain kind of silk goods may be increased in the same proportion.

A sudden increase of duty on certain kinds of goods may result in two different directions. If these branches are alweady making enough profits, the the case will be like the case of J. & J. Dobson Company. It stors the foreign imports immediately but at the mean time new manufacturers come in and its result will be overproduction which leads to benkruptey. If those branches can not make any profit and have to have the additional duty, an additional duty will make the industry grow rapidly, but the public have to bear the burden of supporting an infant industry, either pervanently or temportally. It might be justified if it is a kind of industry which is necessary for national defence and the spirit of nationalism is **s** thing to be desirable.

2. Importers and Exporters.

Importers and experters in general are currying both of the imports and experts business. They are middlemen either between foreign producers and domestic consumers or between domestic producers and foreign consumers. Their business will be more prospercus if the balance of trade is even, and decreased if the balance of trade is one sided. Suppose the imports and emports are

even and both amount to one billion dollars, that means two billion dollars of business for the importors and exporters. Again we suppose that the balance of trade is one sided, either the import or the export, it will be only one billion dollars of business for the importers and exporters.

The Treasury Department and the Senate Finance Committee undertook a joint investigation into the foreign value of import merchandise and the retail selling prices of this imported merchandise to the American consulers. They fou d that the cost, including the value in the country of origin, the charge for transportation, insurance, and freight, and the duty under the old tariff law, amounted for ladies' kid gloves of a cortain type toll.21, while the retail price here was \$6.95. That table knives from Germany whose cost was less 4 cents retailed here at 30 cents. If such a case is true then a high duty will give the importors or retailers less profit for that amount of duty imposed. If this is the case to all import goods, I wonder how high high a duty is needed to protect the American producers, and the present rate of duty will not affect the importation at all. Now suppose that these goods are imported on a profit which the business men deserves that they ought to have that amount of profit, then an additional amount of duty will mean that they either have to import those goods with less profit or stop doing the business.

of duty will not affect the business of the importers. On the other hand suppose that the supply is not elastic, and America is the only market for it, then the foreign producers have to pay the additional duty.

# 3. Consumers.

As a rule, the consumers want to pay as little as possible for any commodity which they wish to buy. Any artificial devise to raise that commodity means an additional burden to them. Any argument that the increasing of tariff that will not affect the price will never convince any body to believe it. "On the face of it, it seems perfectly clear that no industry can receive any (2) benefit from a protective tariff unless its prices are affected." This shows that prices are alway affected by the high tariff, and in turn the consumers is affected by the high prices.

In the United States 97% of most highly finished manufactures (3) as fill the stores are domestic products and only 3% imported, this is also true to the silk industry, this means that for these purchase the people pay \$97 on account of tariff to domestic producers for every \$3 that government collects on imports. The burden of tariff put upon the public is so heavy, and yet the government only collects a small amount of revenue.

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<sup>(2)</sup> Review of Reviews, 66:505 N'22.

<sup>(3)</sup> The Tariff, Fair Tariff League, 1922.

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The unreasonable burden the public have to bear for the support of the domestic manufacturers after they are well established may bg expressed in the following figures. " Against thes \$4,741,000, 000, ( products of 29 industries making mostly the things found in our depart. ent stores at retail prices in 1919 ) which the public was made liable for on these 29 products, the government collected in 1019 \$53,000,000 and 1920 \$95,000,000. In other words, the government collected \$1.00 out of each \$100 that it made the consumer liable for." " With Congress virtually prohibiting inportation by a high tariff, and our domostic manufacturers with their heads to-gether on prices, the pepple are paying unreasonably for their supplies.....It is for Congress and the people to say whether these manufacturers shall henseforth be self-supporting or shall have in addition a great unnecessary grant of public (5) funds."

As in the case of manufacturers and importers they find out one way or another to shift the duty to some body else, while the consumers have to bear not only the duty collected by the government but the same proportion of duty on the domestic products, which consist 97% of the domestic consumption.

4. Labor.

The argument to win the labor for protection is that the American high paid labor must protected by high tariff. But in fact this is

(4) The Tariff, Fair Tariff League, 1922. (5) " " " " " " " " "

not true. It is true that the American labor is the most highly paid labor in the world, but the American labor is paid according to its productive power, in other words he is paid for what he produces. Further more the cost of production depends upon how much does the manufacturer pays per unit of product and not how much the manufacturer pays the labor a day. As we point out before that the labor cost of throwing silk is about 60 cents per pound and one-third of one cent per pair for hosiery, the lowest cost of production in the world. In this case it is clear that we do not need any tariff to preact the labor.

"The wages in some of these industries are inversely as the amount of protection given. When cotton, silks, and woolens were protected as above their labor was among the lowest paid in America \$7 to \$9 per week of long hours, with from 80.5 per cent of the vorkers in woolens to 92.8 per cent in silk are foreign (6) born." This shows that the labor not only was not protected by the tariff but inversely, and most of them in the silk industry are foreign born.

Further more we will see how small per cent as the labor in relation to the value of products and how high it is protected in the silk industry. "In 1919 only 18.5% of the factory selling prices of all silk products went to labor and 22.7% if we chiclude salaries with labor; and yet the tariff was 50.5% or two and

(6) H. E. Miles, Hearings Defore the Committee on Finance, 1922.

three quarters more than the total wages in the mills. In 1919 wages were only 15.7% with the duty average 42.6% or still two and three quarters tipes the total wages.....The protection give the silk mills in 1919 was \$205,000,000, and the Fordney Dill would make it upwards of \$220,000,000, all of which amounts would doubled on reaching the consumers. And today not a yard of ordinary competing silk is imported excent Habitai, a lining from Janon. and Shantung silk from China, both so cheap and poor our manufacturers do not care to make them Against this grant to the manufacturers, the custom revenues brought in only about \$20,000,000 in 1919, and \$53,000,000 in 1920 on silks..... A single operator at about \$3 per day running twenty automatic machines produces 1,800 pairs of the cheapest mens' sock per day, selling at 6 or 7 cents per pair, and retailing in the ten cent stores at 10 cents per pair. The hosiery people now have 36% or 445 protection on the 1,800 pairs to protect a total wage cost of \$36, and they are crying for about 20% protection. They have no right to any for no nation equals our low hosiery costs."

#### 5. Farmers.

The American farmers are under a situation worse than the general consumer and the labor. They sell in the cheapest market in the world, being the export market. They buy in the dearest market in the world.

(7) The Tariff, Fair Tariff League, 1922.

There are two big differences between farmers and manufacturers (8) regarding protection:

1. "Manufacturers can add all their protection to their prices, because the govern ent prohibits competition from abread to the limit of protecting rate. The farmer, however, must sell most paoducts at foreign prices."

2. "As farmers consule half of all products, they pay half of all duties, and half of all wholesale and retail margins added to duties as part of prices. They ay \$75,000,000 to get \$60,000,000 protection in wool; but the very few owners of hosiery and knit goods factories paid less than \$300,000 towards their protection of 3192,000,000 in 19191. The farmers pay \$5,000,000 to \$2,800,000 protection on flax seed, he gets all the duty on wool and flax seed becasue none is imported."

### Chapter IX

# Conclusion.

Fefore the writer draws his conclusions in this study, he wishes to quote a few conclusions from similar studies; The silk Industry and the Tariff, The Tariff on Wool, Sugar in Relation to the Tariff. According to their conclusions that they all agree that as soon as the industries are well extablished and strong enough to compete with foreign producers, the tariff shoud be abolished.

" A considerable part of all the silk industry would probably continue to prosper were the tariff removed entirely. Our experts of silk manufactures have more than doubled in the last ten years. Nost of the difficulties that have stood in the way of successful and independent manufacture have been removed. Some few goeds, already enumerated, the production of which is not suitable to conditions in this country, form exceptions to the foregoing conclusions. Their continued production involves an economic loss. The application of strict economic dontring to the silk schedule would involve the removal altogether of duties on fabrics of the latter class. It is recognized that such a course, though highly beneficial from the standpoint of national commy, could scareely avoid individual less and a course of vested interests. (1) The issue here is that of public against private interest."

" It is not advisable permanently to maintain a duty on wool. The burden on consumers of wool goods more than counterbalances the gain to producers. Moreover, ther is not element of public

(1) F. R. Mason, The Silk Industry and the Tariff, pp 178.

policy which dictates the indefinite retention of a duty. It is not necessary for national defense or because of "vested rights" of wool-growers. Sheep raising is not an "infant industry", nor can the duty be said to aid materially in the diversification of industry. In maintaining a duty we are, in the words of the old adages, 'paying too much for our whistle.'

Although the present duty has helped American wool-growers to extricate themselves from the difficult position on which they were placed by post war depression, the emergency is passing **w**way and doubtless will have disappeared altogether by the time the next general tariff revision occurs. The industry should then be dealt with on grounds of permanent rather than temporary policy. Therefore, when a comprehensive readjustment of tariff rates is (2)made, wool should be placed upon the free list."

"The present rate(1.76) appears to be unnecessarily high. It will tend to raise the domestic marginal cost and encourage the entrance into the field of ineffective domestic producers who, once they have become established can claim the "vested right" argument against a reduction of the duty. If a reduction is to be made the present is a favarable time for making it. High range of prices, much above marginal costs, makes it possible to effect a substantial reduction in the rate, resulting in some relief to (3) consumers without imperiling any branch of the domestic industry."

(2) Mark A. Smith, The Tariff on Wool, 1926.
(3) P. G. Wright, Sugar in Relation to the Tariff, 1924.

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The Conclusions for this study are briefly statel as follows:

- 1. The growth of silk industry is not entirely due to the protective tariff.
- 2. The silk industry in the United States is well established and strong enough to compete with foreign producers.
- 3. There is only a limited amount of importation.
- 4. The public should be relieved from the burden of supporting a well established industry.

# Bibliography.

John Clarke, Mulbury Tree and Silkworm, 1839, Philadepphia. Richard T. Ely, Outlines of Economics, 4th Ed., 1924, New York. Frank R. Mason, The Silk Industry and the Tariff, American Economic Association Quarterly, Third Series, Vol. XI, No 4, 1910. Fair Tariff League, The Tariff, 1922. H. E. Miles, Hearing Before the Committee on Finance, 1922. Clayton F. Moore, Comparison of Tariff Acts of 1909, 1913, and 1922; 1923, Washington, D. C. P. H. Nystrom, Textiles, 1921, New York. Warren P. Seem, Raw Silk, 1922, New Yort. Charles A. Sheffeld, Silk Its Origin, Culture and Manufacture, 1911, Massachusetts. Mark A. Smith, Tariff on Wool, 1926, New York. E. B. Thompson, Silk, 1922, New York. N. S. Woolman& E. B. Mcgowan, Textiles, 1926, New York. Philip G. Wright, Sugar in Relation to the Tariff, 1924, New York. U. S. Tariff Commission, Dictionary of Tariff Information, 1924. U. S. Department of Commerce, Commerce Reports. The Artificial Silk Hand Book, 1928, Manchester. Fourteenth Census of the U. S. Vol.X, 1920. Eiennial Census of Manufactures, 1925. Commerce Year Eook, Vol. I & II, 1928. Moody's Industrial, 1928.

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American Tariff Policies from an International Point of View, Ann. Am. Acad. 83:145, my'19. And Now We Are Going to Have Silk From California, Literary Digest, 78:58 sl'19. As to New Tariff Issues for Wool, Cotton, and Silk. L. D. 61:146, ap 5'19 Chinese Sick Industry, Asia, 17:742. n'12. Economist Paces the Tariff, Independent, 116:549, my 8!26. Effects of the New Tariff, Independent, 79:523, jl 13'14. Farm Revolt Against the Tariff, L. D. 93:13, ap 2'27. Free Trade Against Selfishness, Nation, 112:582 ap 20'21. Great Increase in our Silk Importation, L. D. 57:96 ap 27'18. Imports, The Tariff and American Foreign Trade. Ann. Am. Acad. 94:43 mr'21. New Age of Silk, L. D. 97:16 je 9'28. Silk From the East, Asia, 17:823 D'17. Silkworms' Job in Dan er, L. D. 77:25 my 26'23. Tariff and the Cost of Living, R of Rs 66:505 n'22. Tariff Policy of the U. S. As A Credit Nation. Ann.Am. Acad. 95:220 my'21. Will the Tariff Increase the Cost of Living? L. D. 73:5 je 24'22 .

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