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NEW YORK

FEBRUARY, 1931

Silk Association of America

INCORPORATED

468 Fourth Avenue, New York

Officers for Year Ending March, 1931

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Vice-President, PAUL C. DEBRY
Vice-President, WILLIAM H. HUBBARD
Vice-President, W. R. THOMAS, JR.
Secretary-Treasurer, RAMSAY PEUGNET

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Silk Travelers' Association

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Telephone, LExington 2-4176

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FACT AND COMMENT

FIGURES given in the 1929 data of the Census of Manufactures show that the output of the silk weaving industry increased 19.4 per cent in 1929 as compared with 1927. For the same period woolen goods showed a decrease of 12.8 per cent and a shrinkage of 6.7 per cent is reported for cotton goods.

The Bureau of Census records that in 1929 there were produced 609,388,710 square yards of broad goods valued at \$466,991,107 as compared with 512,826,739 square yards valued at \$485,615,404 in 1927. Velvets, plushes, upholsteries and tapestries are not included.

The all silk goods manufactured in 1929 amounted to 446,106,970 square yards, valued at \$366,654,967 against these figures for 1927, 385,530,447 square yards, value \$376,919,357.

The Bureau has just announced that, according to a preliminary tabulation of data, collected in the Census of Manufactures taken in 1930, the total value, at factory prices, of silk and rayon manufactures, not including knit goods made of silk and rayon, produced by manufacturers in the United States in 1929 was \$652,517,328, a decrease of 7.7 per cent as compared with \$707,091,956, reported for 1927, the last preceding census year.

The items comprised in this total are as follows: Broad goods—except velvets, plushes, upholsteries, and tapestries—609,388,710 square yards, valued at \$466,991,107; velvets, 9,650,631 square yards, \$25,112,377;

plushes, 2,035,654 square yards, \$3,829,769; upholsteries—except velvets and plushes—2,987,054 square yards, \$5,206,631; tapestries, 534,002 square yards, \$915,240; ribbons, \$24,580,398; thrown silk, for sale, 12,161,360 pounds, \$70,058,743; spun silk, for sale, 3,507,674 pounds, \$11,870,293; other silk and rayon products, \$43,952,770. The total for broad goods—except velvets, plushes, upholsteries and tapestries—comprises all-silk goods, 446,106,970 square yards, valued at \$366,654,967; all-rayon goods, 61,987,744 square yards, \$36,360,027; silk-mixed goods, 58,438,605 square yards, \$41,069,401; rayon-and-cotton-mixed goods, 33,354,123 square yards, \$14,433,537; other mixed goods, 9,501,268 square yards, \$8,473,175. Of the 1929 total, \$640,680,829 was contributed by establishments in the industry, those who chief products were silk and rayon manufactures, and \$11,836,499 by establishments engaged primarily in other lines of manufacture.

This industry embraces two classes of establishments: Those engaged primarily in the manufacture of finished silk and rayon products, not including knit fabrics, hosiery, and other knit goods made of silk and rayon, which are treated as a part of the "knit goods" industry and covered by a separate report; those engaged primarily in the manufacture of silk yarn, known as organzine, tram, hard or crepe twist, and spun silk, and in the manufacture of warps. The greater part of the work performed in the second class of establishments is done on a contract basis, on materials owned by others.

The rayon and cotton-and-rayon-mixed items given in the government report refer to fabrics manufactured in silk mills and do not cover the production of these fabrics in cotton mills. No data is presented for 1927 on all rayons, silk-and-rayon-mixed, silk-and-cotton-mixed, rayon-and-cotton-mixed and other mixtures. A comparison of the figures given for 1927 and 1929 shows that there was a decrease in the value for 1929 due no doubt, to the lower cost of the raw material, while there was a very material increase in the yardage volume. Volume, however, does not always mean profits. As no data is collected on a number of items of expense, namely, investment, rent, depreciation, taxes, insurance, advertising, the amount of profits accruing to manufacturers can not be calculated from the census figures.

WITHIN the closing fortnight of last month news of the improving position of silk reached the New York market from the Pacific Coast in the report that the steamship *Tatsuta Maru* had arrived from Japan with a cargo of 4,575 bales of raw silk valued at approximately \$4,500,000, and constituting one of the largest shipments

of raw silk to arrive from Japan in recent months. This is quite in keeping with the "up-and-up" position of silk and could be construed as the anticipation of a good market in the near future by the raw silk dealers who are apparently preparing for greater activities at the mills.

This good Japanese ship also came into port with a shipment of \$3,750,000 of gold, consigned to the United States mint at San Francisco for recoinage into American issue. Of course, this would be better news to the American silk industry if it could be told that the first \$750,000 installment of Japanese money for the initial year's campaign to make silk popular was arriving on this ship or would come with the next one.

INACTIVITY in business is as detrimental in bad times as it is in good. Yet a lot of our business men have adopted an attitude of passive immobility.

They have not moved enough to keep their blood stirring.

Keep in

Touch With

Your Trade

Not only have they made little effort to sell, but little effort to even keep friendly contacts, with the result that with

the resumption of business they will find that they have been forgotten.

Said a live firm the other day: "We are keeping in touch with the trade, producing better stuff, and all hands, though making less money, feel that they are building for the future."

A man climbing a hill has got to use more energy, not less.

In the reconstruction period, men and firms will find that prosperity will come first to those who have kept courageously in the vanguard.

DECLINE IN MILL EMPLOYMENT

TOTAL employment in the silk industry declined approximately 8 per cent during 1930 as compared with the 1929 average, according to end of the year figures issued by the Silk Association of America, Inc.

December employment in the silk industry, the Association reports, shows a decline as compared with November figures of 6.4 per cent on broad silk looms, 7.3 per cent on narrow silk looms, and 3.1 per cent on spinning spindles, the total decline being 4.6 per cent.

Broad silk loom operation was 2.5 per cent less in December than in November, narrow silk loom operation 25 per cent less, while spinning spindle activity showed a 9.3 per cent decrease as compared with the previous month.

THE Textile Color Card Association has issued its Correlation chart for spring-summer 1931. The fashionable color families are listed, and the coordinates for accessories.

THE SILK INDUSTRY'S PROSPECTS

Looking into the future without the aid of rose-colored glasses and seeing a partial recovery of price declines and improved consumption

THE close of 1930 was a signal for all classes of statisticians and economists—novice, amateur and professional, in every line of trade, to sound the knell of an unlamented era, and simultaneously to look forward through rose-colored glasses to a year of at least comparative prosperity.

The rose-colored glasses have come to be a commodity in great demand around the first of any year. But this year, the vision they present is a little foggy. Somewhere in the line of vision there is a bright spot, but it is so obscured by the clouds that its exact position is undetermined.

Cognizant of these facts, we lay aside the rose-colored glasses and venture to make a prediction—namely, that 1931 will see the reversal of the downward trend in silk prices and in silk consumption, that prices will not within the year recover the losses of the year just passed, but that the close of 1931 will find the raw silk market imbued with renewed confidence born of the reversal of the trend.

And, in addition, we are quite willing to add our agreement to the fairly general opinion that the upswing in general business, when it comes, will be led by textiles, and the upswing in textiles will be led by silk.

The basis for this latter conclusion has been aptly expressed by Jerome Lewine, president of the National Raw Silk Exchange, who believes there has already been sufficient improvement to portend a return to a position where prices will be determined by supply and demand. Writing early in January, he said:

“As has become almost customary since silk attained to a position of world prominence, raw silk was the first commodity to become thoroughly deflated during the present business cycle. In this instance, it was also the commodity which underwent the most drastic deflation. Again, it has been the first commodity to show tangible improvement which promises an eventual return to a condition where normal supply and demand factors will become operative.”

The picture in 1930, despite the drastic deflation, contained some encouraging features. Among these was the fact that low prices exerted a deterrent effect upon production. World into-sight movement during the first 11 months of 1930 was 11.3 per cent under that for the corresponding period in 1929. The drop for the first five months of the present season (July to November) was 15.8 per cent, and that for the September through November was 19 per cent. Thus,

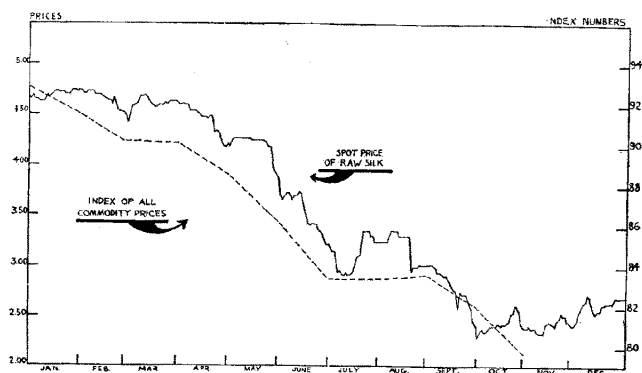
there was not only a decrease, but an accelerated rate of decrease.

Another encouraging note is the fact that the low prices, passed on through the silk industry to the ultimate consumer, have stimulated consumption. Using the same three periods of comparison as above, world disappearance of raw silk in the 11 months was 18 per cent under 1929; that for the first five months of the current season was 8.9 per cent and for September, October and November there was an actual increase of 2 per cent.

Study of the price trend, as compared to that of all commodities, gives food for further reflection. The index of wholesale prices computed by the U. S. Department of Commerce, using 1923-25 as a base, moved downward each month except September during the year. The increase in September was a matter of two-tenths of a point, and was wiped out by the sharp drop in October, which was followed by an even sharper decline in November.

The daily movement of the price of raw silk, as published in THE AMERICAN SILK JOURNAL, based on spot double extra, had been consistently if erratically downward, reaching its low point on October 1 at \$2.30. The decrease in the price of silk was greater, and faster, than that of the index of all commodity prices. But silk prices, recovering fairly well in October, losing ground in November, and rising more in December, have at least passed their low point, and seem to be quite definitely upward.

These movements are shown in detail in the chart below.



PRICES OF SILK AND ALL COMMODITIES

Comparison of daily movement of spot price of double extra silk (actual prices) and monthly movement of prices of all commodities (U. S. Dept. of Commerce Index, 1923-25=100.)

STATISTICAL POSITION OF SILK IMPROVES

STATISTICS compiled by the Silk Association of America with reference to the amount of raw silk in storage, and in transit at the end of the year, and the deliveries to American mills during each month of the year, are presented herewith.

Study of these figures reveals some encouraging information.

Since America is the principal consumer of raw silk, the natural assumption would be that because of the depression in general business, there would be a decided falling off in silk consumption during the year. These figures show, however, that the decrease was only 6.05 per cent. This is decidedly small in comparison with consumption of other commodities, and may be accounted for by the fact that low raw silk prices have been passed on to the ultimate consumer, providing a stimulus for the use of silk in preference to other fibers.

The trend of deliveries in 1930 was somewhat different from that of the previous year. The greatest falling off for any one month was recorded in June, when takings showed a decrease of 40.16 per cent; while there were increases in seven other months, notably December, when American mills took 25.51 per cent more raw silk than in the same month of 1929. This is perhaps the reason why the amount in storage at the close of the year was 5.99 per cent less than at the close of 1929.

Imports during the year were smaller by 16.8 per cent than those of 1929, and there was 12.07 per cent less in transit from Japan at the close of the year.

These facts offer further evidence that the statistical position of raw silk, as regards both stocks and consumption, is slightly more favorable at the opening of the new year than it has been for some time. But the trade is deriving the greater part of its encouragement from the fact that the price movement for the past two months has been sufficiently upward to form

a basis for concluding that the low point has been reached.

The figures reproduced here and the price movement both offer support to the general belief that 1930 will witness improvement in the silk industry.

FAVORABLE FACTORS IN SILK OUTLOOK

ALTHOUGH imports of raw silk dropped some twenty per cent below 1929 levels, and deliveries to American mills were estimated to be some seven per cent under the previous year, the silk industry has had a reasonably good year, as far as yardage sales of silk fabrics are concerned, in spite of the general business depression, according to Thomas B. Hill, president of the Silk Association of America, Inc.

"Only a slight variation in consumption of silk is noticeable as compared with the previous year," Mr. Hill said. "Sales have no doubt been stimulated by the very good values obtainable in silk materials, silk undergarments, silk hosiery and dresses."

"It is difficult to predict what the spring will bring forth, in view of the fact that spring production and demand are not yet fully under way," Mr. Hill said. "Favorable factors in the silk manufacturing industry are the excellent competitive position of silk as a result of the decline in raw silk prices, the unusual values offered the public, the low stocks in the hands of dress manufacturers and retail stores, the more careful co-ordination of demand and supply by the silk manufacturer, and a reduction of manufacturers' stocks as compared with 1929."

RAW SILK IN STORAGE as reported by the principal public warehouses in New York City and Hoboken to The Silk Association of America.

	Figures in Bales			
	European	Japan	All Other	Total
In Storage, December 1, 1930	2,902	34,778	11,558	49,238
Imports, Month of December 1930*	806	59,164	4,646	64,616
Total Available during December	3,708	93,942	16,204	113,854
In Storage, January 1, 1931 †	2,283	46,875	9,272	58,430
Approx. deliveries to American Mills during December 1930**	1,425	47,067	6,932	55,424

SUMMARY

	Imports Received During the Month*			In Storage at End of Month†			Approximate Deliveries To American Mills**			Approx. Amount of Japan Silk In Transit at Close of Month		
	1930	1929	1928	1930	1929	1928	1930	1929	1928	1930	1929	1928
	January	43,175	58,384	46,408	76,264	49,943	47,528	57,683	57,349	52,420	37,000	31,000
February	42,234	43,278	44,828	68,646	46,993	41,677	49,852	46,228	50,679	24,000	30,000	23,500
March	39,990	48,103	50,520	57,773	45,218	40,186	50,863	49,878	52,011	17,800	29,000	19,200
April	37,515	47,762	36,555	53,704	39,125	35,483	41,584	53,855	41,258	8,000	30,700	28,500
May	22,596	49,894	52,972	35,477	39,898	42,088	40,823	49,121	46,367	7,700	28,000	24,000
June	22,369	54,031	45,090	28,450	47,425	41,127	29,396	46,504	46,051	16,300	21,200	17,600
July	47,063	46,795	38,670	35,565	42,596	38,866	39,948	51,624	40,931	31,200	34,100	32,300
August	51,147	65,516	62,930	44,978	48,408	50,975	41,734	59,704	50,821	41,700	41,600	27,500
September	58,292	59,970	47,286	47,621	55,104	50,464	55,649	53,274	47,797	51,600	39,000	25,600
October	65,594	66,514	48,857	51,278	64,129	49,381	61,937	57,489	49,940	46,400	49,000	31,200
November	55,293	62,885	48,134	49,238	76,452	49,806	57,333	50,562	47,709	45,500	41,000	22,800
December	64,616	58,479	44,128	58,430	90,772	48,908	55,424	44,159	45,026	35,600	38,000	42,500
Total	549,884	661,611	566,378	582,226	619,747	571,010
Monthly Aver.	45,824	55,134	47,198	50,619	53,839	44,707	48,519	51,646	47,584	30,233	34,383	26,642

* Covered by European Manifests No. 50 to 54 inclusive, Asiatic Manifests No. 300 to 331 inclusive.
 ** Includes re-exports. Includes 4,615 bales held at terminals at end of month. Stocks in warehouses include National Raw Silk Exchange certified stocks—1,290 bales.

59th DINNER OF THE SILK ASSOCIATION



Sir Henry Worth Thornton, K.B.E.

compared with an increase in population of the United States of $1\frac{1}{2}$ per cent per annum, indicates that your markets are constantly widening. Ninety-seven per cent of your product is consumed in the United States," said Sir Henry Worth Thornton, in his address at the fifty-ninth annual dinner of the Silk Association of America, Inc.

Sir Henry Worth Thornton, K.B.E., guest of honor at the dinner which was held on January 15th, at the Hotel Astor, New York, was introduced by President Thomas B. Hill, acting as toastmaster, as "the British knight from the United States."

President Hill said: "I am inclined to hero worship, and in connection with our guest of honor I like to think of him, first, as a man who has spent a great deal of time in Pennsylvania—naturally, for I am from Pennsylvania. But in addition to that he attended college at the University of Pennsylvania, and as most of you know, was one of their star football players. His deeds have been rewarded by the greatest governments of the world. Today he is president of the largest transportation system in the world, The Canadian National Railways, which, incidentally, carries over land fifty per cent of the raw silk received at Vancouver."

There were upwards of 1,000 members of the silk industry and their guests at the dinner including the following guests at the President's table:

Edward T. Pickard, Chief of Textile Division, Department of Commerce; J. Mitcheson, Consul for Great Britain at New York; H. Shiga, Secretary of

"THE silk industry in the United States employs 137,000 hands and brains. It disburses in wages and salaries \$162,000,000 a year, and the value of its product is \$1,050,000,000 per annum. Production has increased annually in the last ten years at the rate of 5 per cent per annum, which, when com-



William Skinner, Chairman, Reception Committee

Raw Silk Association of Japan; John Hahn, Executive Director of Garment Retailers of America; T. Inouye, Commercial Secretary of the Japanese Embassy at New York; Robert G. Hurlimann, President of The Silk Travelers' Association; P. R. Watson, President of the Silk Association of Canada; Victor Nef, Acting Consul General of Switzerland at New York; Emanuele Grazzi, Consul General of Italy at New York; Reverend W. Warren Giles, Rector, First Reformed Church, Orange, N. J.; Sir Henry Worth Thornton, President of Canadian National Railways; Thomas B. Hill, President of the Association; Francis H. Sisson, Vice-President, Guaranty Trust Company; M. Mongendre, Consul General of France at New York; Matt Thompkins, Mayor of Thompkins Corner; Frederick J. H. Kracke, Appraiser of the port of New York; Samuel S. Young, Consul General of China at New York; Kensuke Horinouchi, Consul General of Japan at New York; W. M. Steuart, Director of Bureau of Census, Department of Commerce; Douglas B. Walker, Director of Intelligence Bureau, National Raw Silk Exchange; Channing E. Sweitzer, Managing Director, National Retail Dry Goods Association; F. S. Dayton, President, Silk and Rayon Credit Men's Association; A. D. White, President, National Credit Office.

This year the souvenir of the Association to its guests was a bridge set artistically arranged in a case of moire silk.

The dinner committee whose efficient conduct of the affair gave all present a most enjoyable evening, consisted of A. B. Strange, chairman; W. R. Blum, P. H. Bonner and Frederick H. Knight.

A two-page reproduction of the smokeless flashlight photograph of the dinner is printed as a supplement to this issue.

The address of President Hill will be found on page 38, and the address of Francis H. Sisson on the business situation, is printed on page 45, of this issue.



A. B. Strange, Chairman, Dinner Committee

PRESIDENT HILL URGES COOPERATION

Address by THOMAS B. HILL, President at the Fifty-Ninth Annual Dinner of The Silk Association of America, Inc., January 15, 1931, at the Hotel Astor, New York City

Would that our organization might be a traffic tower to straighten out the tangle and jam of our industry and set it flowing smoothly again!

Never have we so much needed the sincere sympathy and helpful cooperation of each member of our Association. The most gracious and most useful service is found in devoted and friendly cooperation.

In the mutual loyalties which our partnerships involve, most of us find our richest satisfactions. One of the brightest aspects of the situation in our industry is the evident willingness on the part of our membership to work closer together than ever before.

Permit me to suggest that the strength of our Association in the future and the good will it will accomplish will be in direct ratio to the amount of attention and service, and if you wish, constructive criticism, that you gentlemen devote to it.



THOMAS B. HILL

WE MEET tonight to commemorate our fifty-ninth anniversary. As this is my first appearance before you as presiding officer, I want you to know that I appreciate the honor and privilege of addressing you.

I do not know that we have ever met with conditions as they are at present or as we have passed through during the past year. These conditions are without precedent in the history of our country and present problems over which it is difficult to find former examples for our guidance and for future decisions and adjustments.

Our lives get into tremendous traffic jams, sometimes. At Fifth Avenue and Forty-second Street, of our busy experience, the trucks of our business, the limousines of our pleasures, the flivvers of our petty anxieties and trivial concerns, all crowd together for the disputed right of way. It is then that we need the ordering of life. By ordering I do not mean commanding but putting in order. Our lives need to be ordered, need to be set right, to have their traffic regulated. Some things must go forward, lesser things must wait. Only so, can there be orderly progress on the thoroughfare of life. We have need to watch for the lights of the traffic towers. We have need to watch for and obey the signals of those whose right it is to control the flow of human endeavor and aspiration. Would that our organization might be a traffic tower to straighten out the tangle and jam of our industry and set it flowing smoothly again! Never have we so much needed the sincere sympathy and helpful cooperation of each member of our Association.

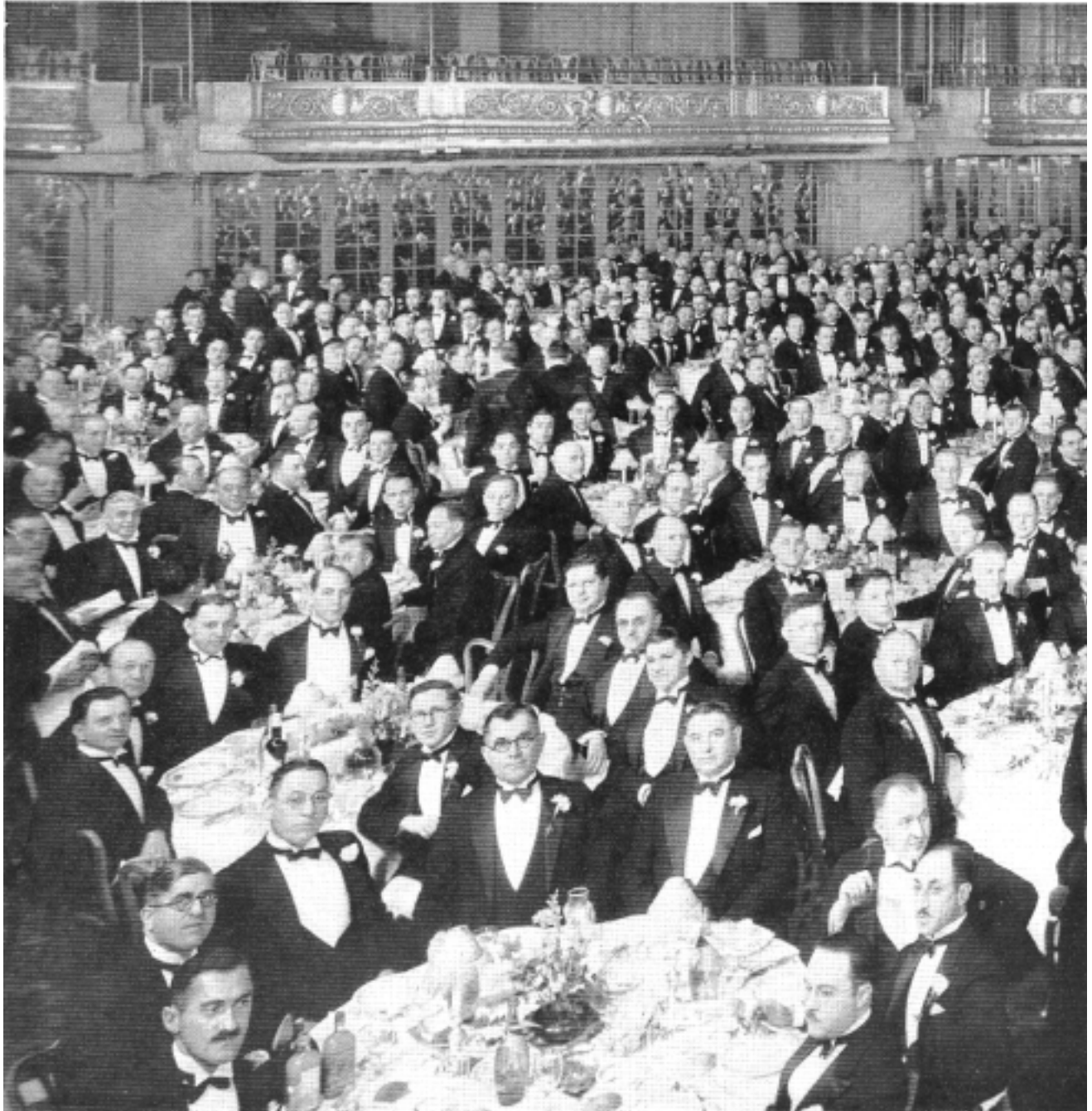
The most gracious and most useful service is found in devoted and friendly cooperation. In the mutual loyalties which our partnerships involve, most of us find our richest satisfactions. To be sure, some men are made to work alone. Most of us were made for comradeship and we are bereft without it. Said a very young and lonely lad, "Mother, I wish I were two little boys, so that I could play together."

Self preservation may be the strongest instinct in man but alongside it is the companion instinct for comradeship. "Only mankind together is the true man," said a great poet.

So deeply is this need for cooperation wrought into life that it reveals itself long before man arrives. The lowest order of animals do indeed appear to talk like this: There is scarcely enough food to go around. What I gain you lose and what I lose you gain. We are natural enemies; there is between us an unavoidable hostility. But one rises only a little way in the scale of animal life before he hears a different tone: It may be that we were mistaken, they seem to say. It may be that our antagonisms are superficial, our mutual interests profound. It may be that if you and I were blended into "we" we could do more for the both of us than either you or I could do for either of us. So the bees hive and the birds flock and the wolves hunt in packs. What began thus among animals continues among men.

Two sets of forces continually play upon us. One pulls us apart, disentangles us from each other, sets us over against each other, sharply individual and competitive. The other set weaves us together, welds us into

(Continued on page 46)



Supplement to THE AMERICAN SILK JOURNAL, February 1931

**THE FIFTY-NINTH ANNUAL DINNER OF THE
SILK ASSOCIATION OF AMERICA, INC., HELD
IN THE GRAND BALL ROOM, HOTEL ASTOR,
JANUARY 15, 1931.**

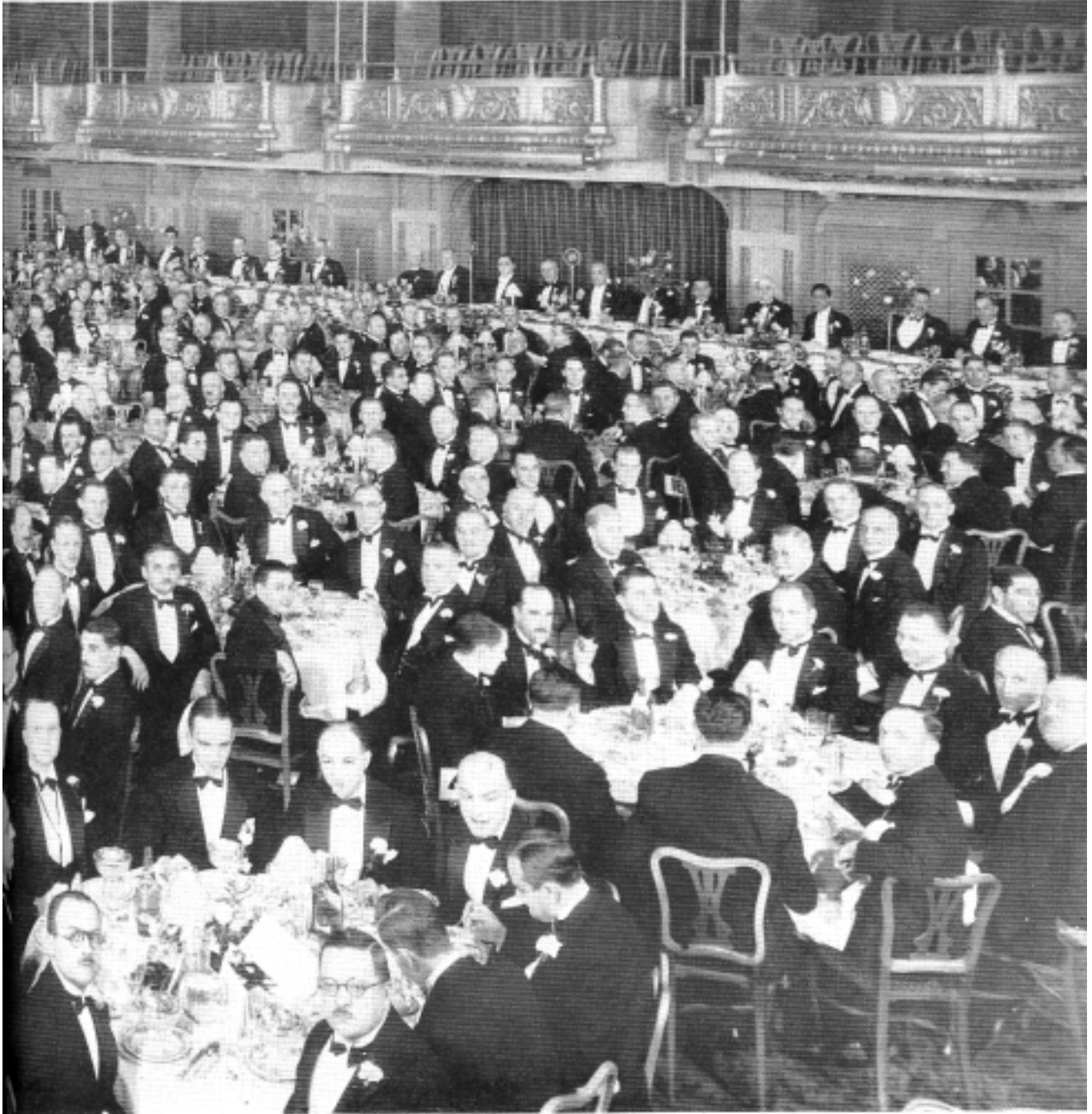


Photo courtesy of Drucker & Baltes, N. Y.

“THE POLICY OF THIS COUNTRY WILL BE DETERMINED BY THE MAJORITY OF ITS CITIZENS, AND, THEREFORE, MAY I VENTURE TO SUGGEST THAT YOU HERE WHO ARE LEADERS IN INDUSTRY, LEADERS IN BUSINESS, AND WHO HAVE THE GREATEST STAKE OF ALL IN THE PEACE OF THE WORLD, CONTRIBUTE YOUR SHARE IN THE MOULDING OF OPINION IN SUCH A FASHION THAT THE WORLD AS A WHOLE MAY NOT BE DENIED THE LEADERSHIP OF THIS GREAT AND PROGRESSIVE PEOPLE?”—Sir Henry Worth Thornton, K.B.E.



HUNTING MOTIFS USED FOR FABRICS IN THE XVIII AND XIX CENTURIES

See text on page 43



DEPARTURES IN DESIGN AND COLOR

Two upper left, Susquehanna Silk Mills; right, adaptation of old Paisley, General Silk Corp. Two left, center, "Les Pastels Delicats," Schwarzenbach, Huber & Co. The remainder from C. K. Eagle & Co.

FABRIC ORNAMENTATION

By John W. Stephenson

A SERIES OF ARTICLES PRESENTING A COMPREHENSIVE PICTURE OF THE DEVELOPMENT OF ORNAMENT AS APPLIED TO FABRICS THROUGHOUT THE CENTURIES

XVIII. Hunting Motifs

IN VIEW of the fact that the patterned fabrics of the various centuries have depicted, more or less closely, the occupations, pleasures and diversions of the people of their times, it is not surprising that the "chase" in its various forms has constituted the subject of many textile designs.

We are inclined to the belief that the Orientals were first to make use of hunting scenes in the embellishment of textiles. The Persian hunting carpets, which are among the most precious examples of Persian rug weaving, are famous throughout the world. Whether or not, as some suppose, the inspiration for these carpets or rugs was found in the Chinese pictures of hunting scenes, is of little importance other than to determine that, if true, the statement merely confirms our own opinion that hunting scenes of fabric decoration are of Oriental origin.

These Persian hunting rugs, depicting the

methods of the chase, and portraying mounted hunters in pursuit of the elephant, lion, phoenix, deer or other creatures, fabulous and real, are few in number and treasured as rare examples of Oriental weaving. There is one in the Museum of Fine Arts, Boston, which is attributed to the middle of the Sixteenth Century; there is another, in silk, belonging to the Imperial House of Austria; another is in possession of

Baron Adolphe Rothschild, and still another is in the Palace at Stockholm.

The pleasures of the chase, ranging from the pursuit of tigers in Bengal to the fox hunts of old England, and of modern days, including also the hunting of game



birds, rabbits, etc., has occupied the attention of many noted painters of the Seventeenth and Eighteenth Centuries. From the artist's canvas to the designing studio is a short step, and from the picture as a wall ornament to the pictorial fabric for furniture covering or decorative hangings was a natural transition that has occurred and re-occurred with great frequency during the last four centuries.

Practically coincidental with the popularity of hunting scenes in the Seventeenth and Eighteenth Centuries there developed another type of motif definitely related to the hunt, that is, the grouping of trophies in ornamental arrangement.

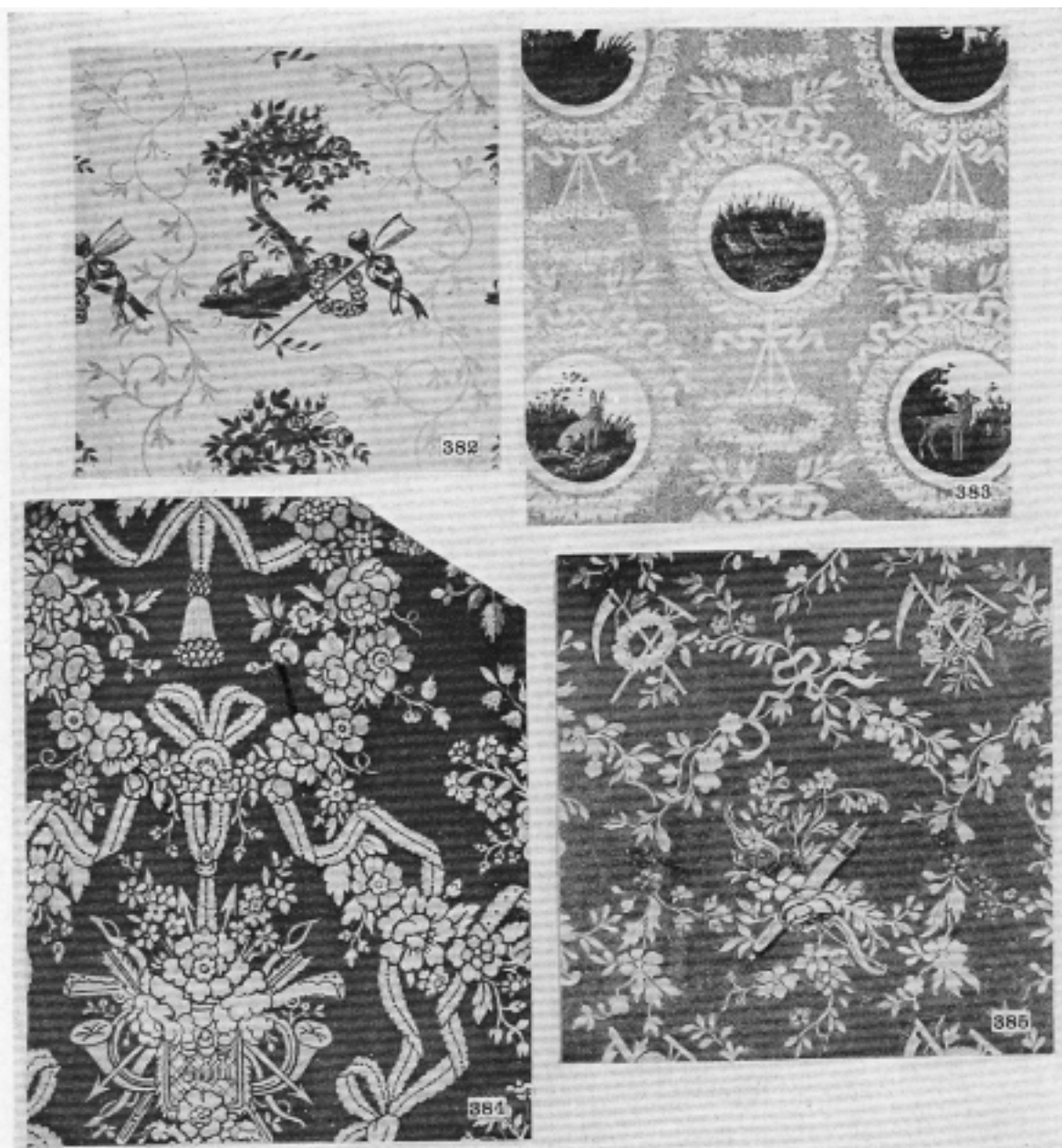
These trophies were probably suggested from the accidental hanging together of hunting accoutrement, of musical instruments, or of other things of common

use which in their ordinary aspects had no pictorial value, but when grouped together in suspended form suggested possibilities of decorative ornament.

We have grouped together the chase, in various forms, and trophies, in this discussion, because there seemed to be an element of relationship as well as a common historic development.

Of the illustrations we show Fig. 380 is Seventeenth Century, and is of the type for which Lyons and Tours were noted in that century Fig. 379 is of French origin, now in the Museum of the Chamber of Commerce at Lyons, and is attributed to the Louis XIV period.

Fig. 381, of trophy character, employing the "lyre" and "guitare," is undoubtedly of early Eighteenth Century
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BUSINESS SITUATION AS IT AFFECTS THE SILK INDUSTRY

Address by Francis H. Sisson, Vice-President, Guaranty Trust Co. at the Dinner of The Silk Association of America, Inc.

ANY consideration of the present position and near-term future of the silk industry must center around two outstanding facts in the current situation, namely, the general world-wide business depression and the low level of prices of raw silk. During the past year, silk has undergone one of the most violent price deflations in the history of the industry, and has declined by a greater percentage than almost any other commodity of primary importance.

To a considerable extent, this deflation is attributable to the same conditions that have caused commodity prices in general to decline almost uninterruptedly since the early part of 1929. In fact, it is possible to see in the recent history of the silk industry a price trend that corresponds, in a general way, to the gradual downward movement of prices of other commodities. In the case of silk, this trend has at times been interrupted, and at other times exaggerated, by conditions within the industry itself. Silk is proverbially subject to very sharp fluctuations in price, although this tendency has been less apparent in recent years than it was until, say, the end of 1927.

Like many other important commodities, silk was in a highly inflated condition in the period immediately following the World War, and the price rose to a level unheard of in modern times. The deflation was equally violent; within seven months, the price dropped more than \$10 a pound, and fluctuated around an average level of \$6 to \$7 for about a year. Then another sharp but highly irregular advance began, carrying the price to a peak of \$10.50 or thereabouts in the latter part of 1923. This was followed by another sharp break, lasting about one year and reducing the price by about 50 per cent. In the latter part of 1925 and the early months of 1926, the price reached another peak of about \$7, a figure that has not since been equaled. An irregular downward movement brought quotations to approximately \$5 by the end of 1927, at which level they remained, with comparatively minor fluctuations, until the last months of 1929, when the recent recession set in.

This last recession, as has already been mentioned, was more severe than in the case of most basic commodities. It reduced the price of raw silk by more than one-half and carried the level of quotations to the lowest point recorded since before the war. In view of the nature of the market for silk, it would not be difficult to explain this deflation on general economic grounds. At a time of declining values for stocks and commodities, consumers' purchasing power is usually affected; and the demand for all kinds of goods drops sharply. This is especially true of so-called luxury goods—products that can be replaced by cheaper substitutes. It is in this category that silk belongs. As an illustration of this distinction, it is interesting to note that, whereas the general level of commodity prices began to decline in the early part of 1929, silk remained firm until the later months of the year, and its decline corresponds roughly in point of time with the downward movement of security values. From this consideration alone, one might be led to the conclusion that silk was merely suffering from the effects of the general economic depression, and that the violence of the decline in its price was due to the restricted purchasing power of the more well-to-do groups of consumers, which at the same time was exerting very marked effects on the demand for numerous other luxury goods, such as automobiles, radio equipment, furs, jewelry and other products.

This view, however, is not supported by a closer examination of the conditions that had been developing in raw silk markets and in the American silk goods industry for some time previously. Nor is it borne out entirely by the developments of the past year. As far as the raw silk situation is concerned, signs of a trend toward over-produc-

tion had appeared before the economic crisis of 1929, although it must be said that the situation was in no way comparable to that which had developed in several other international commodities. In the early part of 1928, a certain amount of depression was reported in Japanese markets as a result of increasing stocks of raw silk. The unsettlement was increased by the financial situation in Japan. That country escaped the full force of the 1921 deflation; and for many years thereafter, with the gold standard suspended, prices in Japan were considerably above the world level. This situation naturally had an unfavorable effect on the competitive position of Japan in international markets and was instrumental in bringing about the increase that took place in the relative amount of Chinese silk imported into Occidental countries, especially the United States. The same tendency was further encouraged by the efforts made by Japanese producers of raw silk to raise prices by curtailing their output.

The Government cooperated in these efforts. In March 1930, it was announced that the Government had agreed to grant a loan of 30,000,000 yen to the silk industry in the hope that such a step would not only aid silk producers but also serve as an indirect stimulus to other industries allied with the production of silk. At that time the silk industry was badly depressed, with prices declining rapidly, the American demand at a low level, and Japanese spinners operating under a 20 per cent, curtailment program. The Government also took over a large quantity of silk to be held until marketing conditions should be more favorable and passed a law decreasing the working hours of filatures from eleven to ten hours a day.

In spite of these efforts, the situation took a further unfavorable turn when the spring cocoon crop proved to be nearly 11 per cent larger than that of the preceding year, illustrating the difficulty of controlling the market position of any commodity by measures aimed primarily at the intermediate stages of its production. New means were discussed whereby output might be curtailed, including a Voluntary curtailment of reeling by filatures, further shortening of working hours, and the sealing of reeling basins. Some progress has apparently been made in holding down production, although the statistical information is too meager to furnish the basis for a very close estimate. The most important movement appears to have come about as a result of the decrease in summer and autumn hatchings, probably due in part to the low cocoon prices.

The present position of the industry, however, can certainly not be attributed entirely to over-production of raw material abroad. The American silk goods industry has also had its over-production problem. In view of the decentralized condition of the industry, the rapidly changing features of demand, and the lack of definite statistical information covering conditions both in this country and abroad, it is not surprising that this should have been so. To what length this over-production actually went, it is difficult to tell in the absence of any authoritative figures regarding inventories of finished goods in the hands of producers and distributors. That there was also too much importing in 1929 is indicated by the fact that stocks of raw silk in this country at the end of that year reached by far the highest total on record. That there was a similar accumulation of finished goods, probably even more serious, is very likely, though it cannot be definitely proved. As far as the stocks of raw silk are concerned, the situation has been greatly improved as a result of the small imports this year. Some improvement has probably taken place also in the inventory position of finished goods, though here again definite proof is lacking.

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PRESIDENT HILL URGES COOPERATION

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friendship, braids us into neighborhoods, nations, associations, and mankind. Both these sets of forces are present in life and both are needful; but one of them is primary and the other secondary. We are not first of all isolated individuals. First of all we are members of the social body and have no true life apart from it. Therefore, the primary law of life is not selfishness; the primary law of life is sympathetic fellow-feeling. Human life is fundamentally built to be voluntarily cooperative.

And so it has seemed important to me tonight to stress the subject of cooperation. One of the brightest aspects of the situation in our industry is the evident willingness on the part of our membership to work closer together than ever before.

This is the Association's day and your President shall talk about the merits and the possibilities of the Association. Permit me to suggest that the strength of our Association in the future and the good it will accomplish will be in direct ratio to the amount of attention and service and, if you wish, constructive criticism that you gentlemen devote to it.

This evening it is appropriate to pay tribute to the many men of our industry who have in the past given unstintedly and unselfishly their service to the silk industry through this Association. They are examples to all of us. A list of them would be lengthy—I know you are familiar with the men to whom I refer.

Among the many things that our Association has done and is doing for the good of the industry, the following seem to me to be worthy of special mention.

There were, during the year 1930, 18,123 inquiries received asking for miscellaneous information, some of such high import as to entail research, both in laboratory and for the accumulation of statistical data. Request for recommendations as to the type of office management one should have in his business, where and how to secure the best trained personnel, methods of buying raw silk, grades of raw silk, the technique of raw silk tests, inquiries from women's club as to the merits of silk, queries from department stores and individuals as to the advantages of silks compared with other textiles; from colleges and schools for data in the teaching of the students in relation to silk. Our Arbitration Bureau has also become increasingly active. The cooperation it offers does not stop within our own industry since on the official list of arbiters are included the names of members of other trades who are men of high standing and who have rendered useful service, which service we acknowledge with much appreciation.

The meeting rooms of the Association are busy throughout the year. There have been 624 meetings held during 1930. All of these meetings pertain to the

solution of not only the industry's problems, but inter-trade problems as well.

One of the important endeavors is Statistical Research. Members are becoming more interested in this information, especially in times such as these.

The work of the Missing Property Bureau has been constructive and valuable. Of losses reported to the Bureau, over 50 per cent have been recovered or a value in excess of \$200,000. In addition to these recoveries being made, many of the miscreants were apprehended, 71 arrests being made and 34 convictions with sentences totaling 150 years.

Your Association is one of the few trade organizations which has succeeded in coordinating the interests of the separate branches of the industry, for the benefit of all.

We are planning extended activity and especially so in relation to inter-trade conferences and cooperation, through stated round table conferences between representatives of our industry and of the trades with whom we transact business, it is hoped that much will be accomplished in the intelligent solution of our mutual problems.

The Research Committee of the Association will direct an extensive program of scientific and statistical research. You will be interested to know that this committee is cooperating with the Textile Foundation and looking after the interests of the silk industry with this Foundation.

We are all interested in the proposed educational silk campaign which, at this moment, is not assured; however, we have reason to believe through the expressions received from our Japanese confreres that the project is likely to be realized in the near future. We have assured them of our willingness to direct this campaign through the Silk Association in cooperation with their representatives. We feel, too, that other countries supplying raw silk to us will join in this campaign. It is a fact that there is no one who questions the great need for such a plan. I am encouraged to hope for this result because of the great progress made in international understanding of our mutual interests through our previous conferences.

Concerning the Vestal Bill, you may be assured that every effort is being made to have the bill passed; if so, the industry will be aided in stabilizing the fancy goods branch of our products. Meanwhile, I recommend the continued use of the Design Registration Bureau of the Silk Association as it may prove to be useful to the Silk Industry in connection with the copyright law.

I commend to your attention the recent organization of the Textile Integrity Guild. If this organization receives the support it deserves, there will be brought about an improvement in ethical practices in business and industry so seriously needed.

It seems to me that manufacturing from the viewpoint of efficient production, economics, quality and diversification, is no longer a problem of our Industry but the big problem that confronts us and becoming daily more insistent is the marketing or distribution of our products, and I commend it to the immediate attention of the members for solution.

There is much discussion in industry in connection with the policies of consumer distributing groups relative to hand-to-mouth buying and reduction of merchandise inventory to exceptionally low levels.

Distributing groups maintain that industry is somewhat responsible for these policies due to the fact that there is a lack of stability in the merchandising of their products and there is probably some justice in this contention.

An estimate has been given me from competent sources to the effect that stocks of all merchandise, including furniture departments, in retail department stores throughout the United States approximate a value of seven billion dollars. Assuming conservatively that these inventories are from 10/15 per cent lower in units than normal, it is obvious that a reestablishment of confidence in stability and a replenishment of these inventories would cause an immediate purchase of from three-quarters to one billion dollars worth of merchandise. Unquestionably this would have the effect of stimulating activity in industry, increasing employment, and would go a long way toward restoring prosperity.

Concerning the thrift of the people of our country, there are in the savings banks of the country deposits totaling three and one-half billion dollars by fourteen and one-half million depositors. In addition, there are deposited in the banks in time and interest deposits, a total of fourteen billions of dollars. Because of this it was contended during the period of prosperity that should a depression eventuate, it would not be serious and protracted. Apparently these deposits are not being used for the purpose for which they were accumulated, and there must be some reason. Is it not due primarily to a lack of confidence which we hope will soon be restored, and that this reserve will begin to find its way into the channels of trade?

There exist today a number of constructive, fundamental, economic facts which must be obvious to all:

1st—Low inventories.

2nd—In many industries, consumption exceeding production.

3rd—A nationwide public construction program of two and one-half billion dollars.

4th—The large total of savings, interest, and time deposits, amounting to seventeen and one-half billion dollars, and finally, a definite and unmistakable trend of optimism.

These factors are of a general nature and their beneficial influence must be felt by the country as a

whole and by all industries and commercial enterprises.

But, in addition to these countrywide constructive influences, there exists a group of basic factors within our own industry that cannot but exert a most constructive influence.

Firstly, there has been instituted a campaign to coordinate production, inventories and sales, which already has resulted in substantially reducing inventories as compared to a year ago. This must be helpful in the marketing of our spring 1931 merchandise.

Secondly, the prevailing low price of raw silk enables our industry to market its products upon a more attractive basis of value.

For a number of years raw silk prices have been trending downward, culminating in the record low price of all times in September 1930, this condition usually resulting in unsettling trade. From all appearances, the trend is now reversed and we can at least look forward to a stabilization of raw silk prices, which in turn should contribute to a stabilization of our industry.

But all these constructive forces will not remain static but will gradually increase in strength and will make for a corresponding betterment of general conditions. However, if we are to reap the full benefits of these improving conditions, we must have confidence in ourselves and we must assert an aggressive leadership combined with an intelligent direction of our affairs.

BUSINESS SITUATION AS IT AFFECTS SILK INDUSTRY

(Continued from page 45)

One thing can be stated with considerable confidence—namely, that the present position of the industry is not due primarily to any adverse fundamental conditions affecting demand. This does not mean that the silk industry has been unaffected by the general business depression. It means simply that the demand for silk goods in recent years has shown a consistent and healthful growth, despite the changes in fashion that have led to a decline in the per capita consumption of textiles in general and despite the growing competition of rayon. It was not until the season of 1929-30 that the demand for silk goods decreased; and it is safe to say that the smaller consumption during that period was due mainly, if not entirely, to adverse general business conditions and that the growth of the industry may confidently be expected to reappear with the advent of economic recovery throughout the world.

It is, of course, impossible to judge to what extent the growth of the silk industry has been retarded by the competition of rayon. Much less can one presume to forecast future developments in this direction. But it is certainly true that so far, while the rayon industry has been growing by leaps and bounds, the natural silk industry has been expanding along with it—at a slower rate, to be sure, but nevertheless, much more rapidly than certain other industries that have not been subjected to such direct forms of new competition. Moreover, silk goods producers as a group have shown admirable adaptability in combining their product with the artificial fibre, thus converting a potential source of loss into an asset, as far as that was possible. It is likely that this tendency will continue, and that the prosperity of silk goods producers in the next few years will depend in no small measure on the success with which

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FASHION SAYS MORE SILK

FASHION, wearied of the hoydenish, tom-boy type of dress that has been peculiar to the flapper age, has again turned feminine. Consequently, our hoity-toity minx, having grown-up, blooms forth in the spring of 1931 with skirts draped from above her knees to below her calves, and otherwise garbed ladylike and more becomingly. Her dress for all occasions around the clock is now to be as distinctive for the liberal yardage of the material and amplitude of the drape as formerly it was conspicuous for scrimpiness of material and the skinniness of the fit.

Daytime dresses for the spring of 1931 reach to the middle of the calf, lowered from the top of the knees in 1929, thus decidedly longer in length than they were two years ago. For formal afternoon, the dresses will reach to the lower calf, and for active sports wear will rise to upper calf length.

The style czars who proclaimed and demonstrated at the spring fashion promenades in the mid-January expositions what the latest changes are to be like, heralded a revival of street-sweeping dress lengths, with drapery and folds inspired by the costumes of the Greek goddesses whose tunic and peplums were ample lengths

Below, a formal dinner gown of printed Mayfair chiffon from Schwarzenbach, Huber & Co.



Above, a dinner gown with fur trimmed jacket of printed Princess chiffon, from Corticelli Silk Co.

of cloth draped around the figure in a simple but very artistic way.

It is this more abundant yardage and billowness of folds that Dame Fashion has decreed in the new silhouette with its long, flowing lines, tunics, draped

Below, an Augustabernard dinner gown of printed, indestructible flat chiffon, from H. R. Mallinson & Co.



Above, spring suit of silk woven in knit effect in fancy yarns, from the Amos Parish Fashion Promenade.

necks, draped girdles and sashes, cowls and scarfs, all augmenting the amount of silk piece goods that must bring increasing activity to spinning spindles and weaving looms.

Fashion is also ringing in changes that give intimation of style ideas popular in the dresses worn a hundred years ago in England and France. These revivals are likewise adding to the amount of goods required to complete my lady's wardrobe.

The return to favor of those old time ideas of necessity includes the petticoat, and the somewhat elaborate lingerie that was so exquisitely feminine in the fashions originated and worn by the Empress Eugenie.

It is this increase in the yardage that is being employed in the feminine apparel for 1931 that concerns the producers and distributors of silken goods. They are happy in the knowledge that women's dresses are

PRICE SAYS MORE YARDS

Today longer than they were a year ago, longer than they were two years ago. How much difference is the yardage in the dress of 1928 and 1931? It varies with the dress made for sport, with the dress worn to business, and in the formal day dress as well as in the for-



Above, daytime dress of printed flat crepe from C. K. Eagle & Co.

Below, Chantal pyjamas of printed Vagabond crepe from H. R. Malinsson & Co.



mal evening costume. The latter reaches to the heel, or may sweep the floor a trifle. The formal dress is also using more yardage in its draped fullness.

The dress that was considered recherche in 1928 made out of four or four and a half yards of silk, would not reflect the latest idea in fashion today, made up out of not less than six and a half yards of material. If also there should be figured in the total yardage increase what is employed for the petticoat and lingerie now following the changes in the silhouette, there will be found a very substantial gain in the goods distributed by costumers and retailers.

There is no fashion revolution in any of the changes here chronicled. There are no radical departures to distinguish the modes of 1931. The changes have been gradual. Now, however, that from the standpoints of fashion and yardage dresses have

reached a satisfactory, sensible ground, these changes will at once be more agreeable to the wearers and to the material producers as well.

The outcome will be a greater demand than ever for clothes. Demand will be aided on the one hand by the readiness with which the fashion ideas will be accepted for the wearableness of the new themes. On the other hand, more silk will go into consumption as a direct result of its low price. Women finding that they can get the new fashions in the greater yardage employed for the new models at prices temptingly lower than formerly will satisfy their craving for the up-to-date dress. Silks are so alluring from the price angle as well as for their leadership in the mode, that even the clever home seamstress will buy more dress lengths knowing, nothing will be gained by refurbishing or making over any of last year's occupants of the wardrobe.

1931 is to be a silk year! It is assured by feminine fashions, increased yardage consumption, and the low price at which the best silks can be bought.



Below, "Cocktail Hour" pyjama ensemble of printed and plain Sportinax, from Corticelli Silk Co.

Above, dancing pyjamas of printed flat crepe, from Schwarzenbach, Huber & Co.



BUSINESS SITUATION AS IT AFFECTS SILK INDUSTRY

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they adapt themselves to the changes in popular demand in this particular direction.

It has been felt in the past that the use of rayon has been of more consequence to cotton than to silk, particularly in the knit goods industry. In recent years, however, improvements in quality, the development of multifilament yarns and finer sizes, and the reduction of its characteristic sheen have brought rayon into closer competition with silk itself.

Such a development need not be unfavorable from the standpoint of silk goods producers; in fact, it is in some respects beneficial, since the use of rayon broadens the supply of raw material and tends to reduce fluctuations in prices. It seems to have been an important influence in the gradual downward trend of silk prices since 1926 and in the failure of upward movements to make such headway during that period. Competition between the two fibres may have been increased to some extent by the sharp decline in rayon prices, although an influence in the other direction has been the even more drastic reduction in prices of raw silk.

While the progress of rayon is not—or need not be—unfavorable to the silk goods industry, the growing popularity of other textiles is a development that may result in somewhat greater difficulty. Both cotton and wool fabrics, which have passed through a sustained period of depression during the last decade, have recently received more public favor than in several years. Cotton and wool manufacturers have paid more attention to the styling of their products, and the increased popularity of these goods is evidence of the success of their efforts. It is hardly expected that the use of cotton and wool fabrics will increase sufficiently to reduce silk consumption very greatly, for silk is too well established in all but the cheapest price ranges. The more attractive goods now being produced by cotton and woolen goods producers are, however, a factor that has probably tended to limit silk consumption in the past year and to make competition keener, particularly in view of the tendency of consumers to favor the less expensive grades of goods in times of depression.

In view of the rather formidable array of conditions that can be mentioned as possible depressing influences on the silk industry during the past year, the actual decline in the activity of manufacturers has been smaller than might have been expected. Manufacturers' takings of raw material declined very sharply in the early part of 1929, and in June reached the lowest level recorded since 1924. This curtailment, however, was followed by a vigorous advance to the highest figure on record in October. Average monthly takings for the first eleven months of 1930 were only about 7 per cent smaller than in 1929, and yet manufacturers' stocks of raw silk at the end of November were smaller than those a year earlier.

The most doubtful elements in the current situation are the position of manufacturers' and distributors' stocks of finished goods and the probable rate of consumers' demand in the near future. It appears that sales of broad silk and knit goods, both at wholesale and retail, declined rather steadily throughout 1930, and that shortages of considerable volume may have accumulated among converters, dealers, and ultimate consumers. This belief may have been influential in causing the sharp recovery of mill activity in the second half of 1930. It is generally agreed that mills are now operating at a level considerably above the rate of current demand in order to build up stocks in anticipation of a fairly active spring season.

In view of the sharply curtailed buying in recent months it seems not unlikely that this expectation may be realized. Converters have probably carried their caution in buying to an excessive point, warned by the large unsold stocks that resulted from their over-optimism last year. And the same consideration may apply in a lesser degree to the current position of consumers.

The situation in raw silk is, of course, still rather unsatisfactory from the standpoint of producers. Syndicate stocks in Japan remain very large. Some improvement,

however, is likely to be witnessed as a result of lower Japanese output growing out of the efforts of the Government and private producers to restrict the activity of filatures and cocoon-growers. This prospect, together with the reduction of American stocks of raw silk due to the increase in mills' takings, is probably the main cause of the greater strength of raw silk prices in the last quarter of 1930. But until the permanent effectiveness of curtailment in Japan is more fully assured, and until the outlook for American consumer demand becomes clearer not too much reliance should be placed on the likelihood of further substantial recovery in raw material prices.

On the whole, it seems probable that any improvement in the silk goods trade will be very gradual. There are two main reasons for this view. One is that, although the clearing out of distributors' and consumers' supplies seems to have made some progress, the rate of ultimate consumption of a luxury product such as silk is highly dependent on fluctuations in purchasing power, which, in turn, is determined by general business conditions. The other reason why expectations for the near future should be conservative is that it is doubtful whether mill activity has yet reflected the true magnitude of the decline in demand.

As to the first of these considerations, it cannot yet be said that the outlook for general business revival has become clear. A good deal of emphasis has been placed on the increase in industrial output and the gains in employment since the first of January. It must be borne in mind, however, that a similar trend almost invariably appears at this season and that the information regarding the current movement is not yet sufficiently complete to warrant the statement that a permanently significant improvement has occurred. The recent movement of general commodity prices is not very reassuring. The stock market has recently shown more strength than was apparent in 1930, but the upward movement has not yet gone far enough to demonstrate that the long-awaited reversal of trend has occurred. Experience has shown, moreover, that recovery from an economic depression of such magnitude as that through which the world is now passing is almost invariably a very slow and irregular process. Setbacks are usually encountered, particularly in the early stages of expansion, which, for the time being, largely conceal the real progress that is being made. Any confident expectation, therefore, of a large-scale recovery in consumers' demand for such an article as silk should be held only in connection with a fairly long-term look into the future.

The apparent failure of mill activity to register a decline commensurate with that which seems to have taken place in consumers' demand is also a point worthy of considerable emphasis. From the long-term point of view, it is perhaps unfortunate that the increase in manufacturers' takings in recent months was not held within more moderate limits. Deliveries of raw material to mills during the months of September, October, and November were more than 9 per cent larger than those in the corresponding period of 1929. This activity seems to have been especially marked among broad silk producers, whose output, from all appearances, has been based on fairly optimistic expectations for the near future, rather than on any actual revival of current demand. It still remains to be seen whether the market during the winter and spring months will be sufficiently active to provide an outlet for all the goods that are now being produced.

In a brief summary of the outlook, therefore, the outstanding probabilities are, first, that the buying policies of converters and dealers will continue, for the time being, to be characterized by extreme caution; second, that this policy will be modified gradually, as replacement requirements necessitate more active purchasing; and third, that the net resultant of these two influences will be a gradual and irregular increase in demand during 1931. The beneficial effects of this increased demand will, however, be limited by the fact that producers in general, and broad silk manufacturers in particular, have not yet responded fully to the unfavorable factors that have been at work in their markets. For the more distant future, the likelihood is that the silk industry, in spite of the increasing competition among producers and the rivalry of other textiles, can continue the healthful growth that has been shown in recent years, provided the necessary alertness

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VALUE OF UNIFORM ACCOUNTING METHODS WITHIN AN INDUSTRY

Uniform Cost System for a Trade Association—Stabilizing Sales Prices—Prices that Produce Profit—Excerpts from an Address before the New York Chapter of the National Association of Cost Accountants, by E. A. Grover, Consultant, National Machine Tool Builders' Association.



A UNIFORM cost system in a trade association, to be effective, must be sold to the members and stay sold. To be sold, it must be simple; to stay sold, it must be productive of profits.

Such a system should

- (a) Stabilize sales prices.
- (b) Establish activity standards for an industry against which individual members may compare their own activities, thereby discovering weak places in their organization, thus reducing costs, which in the end produces profits.

It is quite possible for each company of an industry to establish standards of various activities and consistently show a close agreement of actual cost to the standard so set; whereas if the actual cost were compared with an industry standard, it might prove the company's standard clearly out of line.

Standard and Normal costs are synonymous, whereas Uniform Costs indicate uniform methods of cost accounting. It will be understood that Standard Costs are what the product should cost with a plant at normal capacity, based on studies of several years' activity.

The use of Normal costs in establishing sales prices will bring more profitable business to each company by weeding out the unprofitable jobs and taking on those that will return a profit.

The best results from uniform costing by members of a trade association will be obtained by employing a full time cost man who will, with the help of the members, design a suitable system and secure its adoption by the member companies of the association.

The cost consultant should first make a comprehensive survey of the conditions in the industry by a personal visitation of the plants of the company members. Such a survey should disclose the cost activities most in need of improved accounting procedure, and plans should be developed to conduct a series of cost meetings to discuss the most effective way of treating them.

Should the membership of the association comprise one hundred companies or more, it might well be divided into geographical districts, so that the member com-

panies can most conveniently assemble for group meetings. With a small membership best results will probably be accomplished by meeting at one central place.

One of these cost meetings held every four months has been found to work out most satisfactorily and the presence of both chief and cost executives will yield best results. Meetings so organized will make unnecessary a cost committee, as the whole membership will contribute to the sum of information and experience from which the consultant will build the uniform system.

The program for these district meetings will naturally be prepared by the consultant, who will select the subject for discussion together with a proposed cost procedure related to it. This subject and its development will be open to the fullest discussion on the part of the members when frank and constructive criticism will be applied and such modifications made as may be necessary to reach a reasonably unanimous conclusion.

After each of the regional groups have had an opportunity to study and discuss a selected subject, the consultant will prepare a cost bulletin setting forth the principles and procedures to be followed by the members in costing the activity discussed.

Between the preparation and issuing of the cost bulletin and the planning for the next meeting, the consultant will make his regular calls on the member companies to discuss and clarify the subject treated as may be desired.

Not only should the several specific activities of the association be discussed in the regional meetings but semi-annual meetings should be held at some central point where all the members in the association may meet to consider such topics as the members may suggest.

As soon as sufficient material has been brought together by the regional cost conferences, the consultant will edit a manual of cost accounting for the uniform use of the members.

The placing of the manual in the hands of the members will by no means insure its adoption and all the tact and skill of the consultant will be required, not only to induce lukewarm members to introduce the system in their organizations, but to assist those who

do adopt it in the proper installation of the same.

The board of directors and manager of the association, all of whom should be familiar with the manual, can be of the greatest assistance in cooperating with the consultant in this most important and perhaps hardest part of the whole job. For, unless a majority of the members engage whole-heartedly in the task of installing and operating the system in their organizations, much of the time and effort represented in the months of preparation will be lost.

When the manual has been presented to the members and its general adoption practically assured, the consultant should begin to establish industry standards from reports submitted by those members who are using the uniform system, and who in turn will be supplied with these industry standards for comparison with their own activity records.

These standards representing concrete evidence of the practical value of the applied system, together with the enthusiastic endorsement of members using the manual, will go far toward spreading the gospel of better costing procedure in the industry.

The cost manual, to adequately cover the subject, should show:

1. All principles of cost accounting for the industry in language that can be understood by any member without the aid of a professional accountant or cost engineer.
2. Uniform procedures for handling each detail of the system, presented both by graphs and written text. The charts and graphs will prove most helpful to a clear understanding of a decidedly technical subject.
3. Recommend forms to operate the system.
4. Detailed explanation of how to install the system.
5. Exhibits of reports of members for use in establishing industry standards.
6. Exhibits of reports for executives, explaining the particular significance and value of each.
7. A separate sheet for each ledger account, showing thereon all regular debits and credits and the source of the information from which entries are made.
8. A suggested chart of personnel to operate the system with the duties of each.
9. The operation of statistical and research activities of the association staff after the system is in operation in the plants of a group of members.
10. Forms and explanations covering the following:
 - Estimating, engineering, pattern making, foundry costs, machining, assembling, tool-making, painting, heat-treating, crating and shipping, inventory control, power, production control, payroll, accounting, purchasing.
 - Marketing research and costs—by classes of

product.

Territories, salesmen or agents, classes of customers.

Material costs, direct labor costs, burden (overhead) set-up and distribution, shop-losses (scrap), accounts payable, demonstration, experimentation, accounts receivable, general accounting, plant asset accounting.

To make a uniform cost system worth while in a trade association, it is essential that the members be willing to cooperate with the association staff in the adoption and application of the procedures set forth in the manual. To secure this uniformity may mean discarding methods in themselves effective and yet the value to the individual member of comparing his activity standards with others in the industry or with the industry standard can only be secured if all have agreed to follow a uniform procedure in important details.

FABRIC ORNAMENTATION

(Continued from page 44)

tury character, and is companion to Figures 382 and 385, which are in similar trophy style.

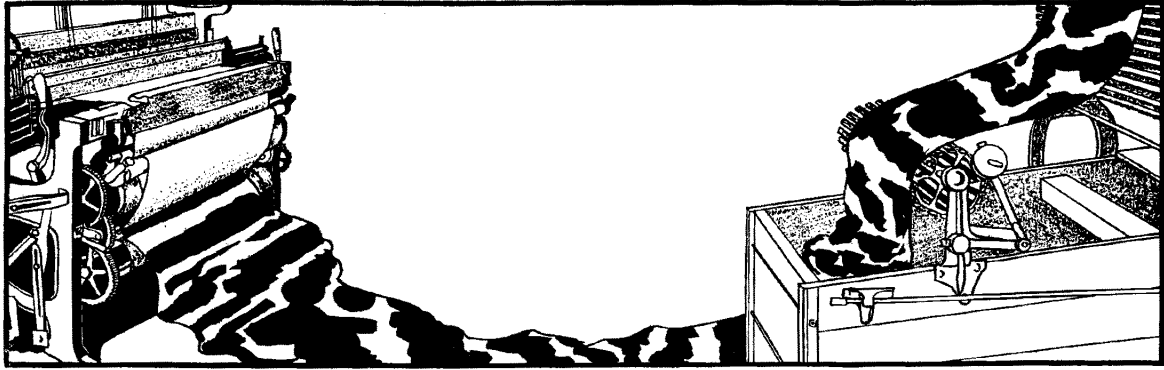
Fig. 384 is also of the Eighteenth Century, made at Lyons during the reign of Louis XVI, and showing ribbons in garlands and bow-knots interlaced with floral wreaths and a military trophy. Fig. 383 is of the same general type, but is very much later in period.

Figures 373 to 378, inclusive, are in the well-known style of J. B. Huet, who designed many of the subjects for the Toiles de Jouy, printed by Paul Christopher Oberkampf.

NEW LOOMS INSTALLED

THE Brupbacher Silk Mills, Ltd., Valleyfield, Quebec, are being equipped with Crompton & Knowles looms. When the Brupbacher equipment is running complete the looms will be operated on a basis of twelve to a weaver with no less than 85 per cent production.

In an eight-page folder calling attention to their redesigned, new, high speed worsted loom, which is built on automotive principles, with roller bearings and precision construction, The Crompton & Knowles Loom Works calls attention to the statement of Col. Charles F. H. Johnson, president of the Botany Worsted Mills, Passaic, N. J., that "the Botany concern has taken the textile depression in hand, with courage, confidence and aggressiveness. They have decided upon a sweeping rejuvenation of their plant and equipment. Questionnaires first analyzed the possibilities of Botany's market, then they began to scrap 1610 of their looms. And now Crompton & Knowles, working in close cooperation, is rushing to Botany the first of a large order of new automatic high speed worsted looms."



STYLE PROBLEMS AFFECT MILLS AND MARKET

AT this hour of writing, when the low water mark in the ebb and flow of the tide in silk manufacture is barely out of sight, it is reasonable to expect that February will show the change of currents in the form of new business to satisfy a new demand for merchandise.

Silk manufacturers of one accord emphasize the utter depletion of stocks, and the necessity for buyers to replenish or give up. Much faith is pinned also to the lowered prices and the consequent offering of better grades of silks at prices attractive both to garment makers and consumers. A trading-up policy is noticeable. Two reasons for it are accented. Women who want silks are asking for better quality, and large scale silk manufacturers are desirous of producing silks that will bring the greatest possible return in the present methods of operation. In other words, volume production for mass consumption, at the lowest possible margin of profit is not practicable, when the supply is in excess of demand.

Fabrics and fashions that were wont to join hands heretofore in creating new interest with recurring seasons, have fallen these many months, under the general ban of "depression." "Inflated values" in silks have had their rise and fall, and consequently this spring finds the consumer in a reactionary state which both producers of fabrics and designers of dresses are endeavoring to dispel.

Demand for silks by the yard, at retail counters is taken as a gauge of the present day situation. It is variously interpreted as an expression of dislike and dissatisfaction with ready-made models or the quality of the silks in them, on the one hand, and of the necessity for women to make and make over their own dresses as a matter of economy.

AN INDEFINITE STYLE PROGRAM

The aspect of the silk market, as regards the merchandise offered, is kaleidoscopic. Producers have grasped the opportunity for change, hoping to create an appeal for this, that or the other kind of silk when the style program is indefinite enough to permit. A

plethora of prints is already sensed, though every manufacturer will tell you he is holding back, and will show other and different designs as the season progresses.

Stripes, plaids and polka dots are mentioned as outstanding revivals for the coming warm season. In fact many or all of these styles of print silks are included in the winter resort wardrobes upon which women of smart style sense are now passing judgment. Plaids are making a bid for favor in both crepe and taffeta weaves. The original surah medium gives place to printed variations having the desired effect. The plaid designs are not altogether the traditional clan arrangements of lines and colors, but rather modern versions, and bias formations that are original in color contrasts and mixtures.

Following the lead of Paris, American manufacturers are bringing out plaids on sheer chiffons for dresses, to be accompanied by the inevitable jacket of a plain color fabric.

The striped silks show some Roman colorings, but more two color contrasts, usually with white to form the stripe on a colored surface. Manipulation of the stripes with the lines crosswise or diagonal effect striking innovations in the models.

There is flair for Paisleys in crepes, borders on plain solid colors, and on sheer fabrics. Less of the olden time Persian shawl patterns perhaps, and more modern patterns using the Persian colorings and design source suggestion are seen. Haas Brothers have a new line of Eastern prints inspired by the Colonial Exposition held in Paris. All of these afford opportunity for clever contrasts of plain colors, the mingling of two colors being a fashion note that rings loudly in apparel for every hour of the day or evening.

And evening fabrics lend emphasis also to prints on sheer chiffons and crepes, large bold floral motifs being used extensively in color combinations that are gay and quite appealing for warm climates and Northern summers.

A series of new Frenchy prints has been featured by C. K. Eagle and Company, who also show a line of plain solid crepes in a selected assortment of col-

ors for resort and sports wear. "Mute tones" of peach, turquoise, rose, yellows, light blues, orchids, etc., are cited for fashion favorites, with a gamut of still lighter tones to be advanced as warmer weather comes along.

Coin dots in quarter-inch diameter, are cited for favor, in the two color combinations of which white is most evident for summer. White on black, blue or brown, will be featured, or the reverse, with the dark color dot on white, or light grounds.

HEAVY SHEERS FOR SPRING

While plain silks create little stir, and are usually available for the average demand, there is said to be a coming vogue of plain heavy sheer silks, like georgette, Roma, Elizabeth, etc., and the newer double chiffons and double georgettes, for tailored street dresses and suits. One senses the exploitation of this idea as a style that will appeal to conservative smart dressers, when prints become almost too common for general street wear.

The small neat motif, usually a floral one, has been developed along with other designs for a series of pure dye satin foulards being introduced with much success by the Duplan Silk Corporation. This revival of a by-gone summer silk favorite suggests its adaptability to the semi-dressy costume with feminine touches of lace, and even some ribbon trimmings. The Duplan company is continuing to sell its good grade rayon flat crepe with print designs. The fact that rayon has been much lowered in price, and that all silk fabrics can be sold for approximately the former price of the Duplan rayon is not regarded as a reason for curtailing the rayons. Anticipating the drop that was coming in the rayon yarns, the price of the printed crepes was lowered, but without affecting the profitable merchandising of them, according to the informant. It is thought that demand will keep up for the high class rayon dress fabrics, despite the current changes in the prices of both rayon yarns and pure silk.

Despite the swing of the pendulum back to pure dye silks, with prices low enough to warrant their consumption in a large way, silk manufacturers have not wholly abandoned the weighted silks, as the trade demand among the cutters-up is for a fabric with the "hand" that artificial weighting affords. Many are lessening the "load" very much, to give a cloth that will not be criticised for cracking and wearing out unduly soon.

ROUGH STUFF

Silks of the Shantung and kindred families are outstanding in this season's fabric program. Many producers are adding them and striving to develop new effects in the rough textures. Shantung crepe is a development in accord with the liking for the "twisted" thread in weaves, and quite new in the weaving of schappe yarns. Mixtures of the rough silk with artificial threads also effect new fabrics much liked for

sports apparel. Thus far the trade demand has been good for both plain and printed Shantungs. There is a wide variety in these, but a two or three color spaced motif is a common favorite. White and light grounds are essentially the summer offerings, while darker grounds like browns and greens are very pleasing with vivid light contrasting colors. The simplicity of the designs makes for their interest in many lines of printed sports silks of the Shantung type.

The cutting-up trades have taken many kinds of supple silks, crepes, and sheer weaves for separate blouses. Eyelet embroidered silk crepes, which sold well before the holidays, then had a little lull, are reported by one house to be in good demand again.

Novelties of the more expensive types include chiffons embroidered with silk and having some metal threads; a few fancy taffetas, and embroidered organ-die, to be accompanied by a satin jacket or transparent velvet coat.

Chiffon is sold to combine with silk laces of matching colors. Gray is having a season of popularity for formal afternoon and evening dresses. White is stressed for the height of summer, in all kinds of silks and sheer materials.

End on end striped wash silks have been in good demand over retail counters, for blouses and sports dresses.

Garment stylers are sanctioning transparent velvet for extended use in long or shorter evening wraps, and jackets to complement formal evening frocks. It is mentioned that two-piece suits of velvet will be exploited for spring street wear.

A NEW CLOTH IS SHOWN

Certain high grade manufacturers are stressing fine weaves of sheer crepes both georgette and chiffons. The heavier grades for tailored manipulations are noticeable for their clearness and finish. A new cloth shown by Louis Roessel and Co. is a sheer with small cross-bar effect due, not to an extra thread, but to a certain crepey twist which gives the interesting regular marking akin to a fancy weave.

Manufacturers of high class silks welcome the commercial change in the lowering cost of raw silk as they believe they can advance their output, improve productions and give discriminating women more or less out-of-the-ordinary silks at prices that will not prohibit their possession.

One does not survey the silk market today without realizing how much readjusting and reorganization are going on within in order to compete with the rest of the manufacturing silk world, and still make a reasonable profit.

Some firms report gratifying activity, others only fair selling for Spring. As a rule prices are commensurately lower, and profits therefore relatively small in comparison with the opening last spring. Withal there are expressions of confidence that business will be good.

UNIFORM CLASSIFICATION FOR RAW SILK

THE progress in classification since the Second International Technical Raw Silk Conference has been decidedly toward international uniformity and unification. Several important developments have occurred which bring this ideal closer to reality. Chief among these are: first, the agreement between the Raw Silk Association of Japan and the Yokohama and Kobe Raw Silk Exporters Associations to the effect that all raw silk transactions in the primary market should be made on the basis of test certificates issued by the Yokohama and Kobe Conditioning Houses; second, the growth in the use of certified silk in this market which received great impetus as a result of the co-ordination of the Inspection Bureau of the National Raw Silk Exchange and the United States Testing Co., Inc.

The year since the conference was also the first one of actual operation by the Chinese Government of the Shanghai Testing House. While the Chinese have not been active it is felt that the groundwork is being laid for the adoption of whatever standard is arrived at by the Japanese and American groups.

Both of the major developments noted above have resulted in wider and more official recognition of the principles and practices of standard raw silk graded, according to the representative silk men who have participated in this symposium.

Thomas B. Hill, president of the Silk Association of America, Inc., stresses the previously mentioned developments in Japan and in the United States and in addition expresses the following opinion:

"The Raw Silk Classification Committee of the Silk Association has held eight meetings since the conference, during which period several practical steps have been taken to make more available to the average purchaser of raw silk, the results of research made by the Committee. Definitions for the various raw silk reeling defects, which will show up in finished fabrics unless detected prior to manufacture, have been revised by the Committee to bring them into harmony with the Japanese definitions. Supplementing these definitions, standard photographs for cleanness, as selected and developed at the Yokohama Conditioning House, have been recommended for adoption by the Committee. A revised Evenness Test by Inspection has been tentatively adopted. Detailed plans for the layout of a raw silk inspection room were published in the Association's bulletin, The Silkworm, for the information and guidance of the trade.

"The practical application of raw silk testing data to the grading and classification of raw silk has been increasingly apparent during the year, particularly among those who heretofore bought only on grade names. The great majority of raw silk contracts coming to the attention of the Association this year included specifications, at least as to percentage of evenness. This applied not only to Japanese silk, but Chinese and Italian deliveries as well.

"It is difficult for the average layman in any industry to appreciate the practical value of research made by technical men in that industry. This might also be said of differences of opinion that may seem to exist regarding a project as unusual as the Raw Silk Technical Conference. The goodwill created by the daily meeting together of such a widely separated group as attended the conference, however, is a strong indication that even the most advanced theories may be brought down to a basis wherein practical agreement can be reached between those representing different points of view but dealing with one general commodity."

Douglass Walker, vice-president of the National Raw Silk Exchange and director of its Intelligence Bureau, makes the following analysis:

"The results may be roughly divided into two divisions,

namely; results of a general nature and results of a technical nature. Thus far the results of a general nature have been decidedly great and there is distinct hope that the results of a technical nature will ultimately prove to be equally gratifying.

"Among the most important of the results of a general nature is the greatly widened recognition of the fact that the solution of the classification problem will be achieved through the means of regarding raw silk purely as a commodity and not as a multitude of different commodities, so to speak, with a multitude of different applications by consumers.

"The Japanese have, of course, always urged the necessity for grading and classifying silk as a commodity. However, the expressed willingness of the exporters in Japan to have silk tested by the Imperial Conditioning House as soon as the Conditioning House has amplified its facilities will put this principle into active operation

in the primary market.

"Another important development arising from the Conference has been the recognition of the desirability of having raw silk graded and classified by a third party who would be competent, responsible, impartial and subject to none of the influences which might actuate grading by interested parties.

"This has received impetus in three ways:

- "1. The expressed willingness of the exporters in Japan to have all inspection done by the Imperial Conditioning Houses.
- "2. The announced intention of the Japanese Bourses to have tenderable silk graded by and in accordance with the standards of the Imperial Condition Houses.
- "3. By the transferral of the Inspection Bureau of the Exchange to the United States Testing Co. and the appointment of the United States Testing Co. as the exclusive official inspector, testing laboratory and warehouseman for the Exchange.

"Insofar as results of a technical nature are concerned diligent study and discussion has been under way by the Raw Silk Classification Committee of the Silk Association and undoubtedly and presumably by individuals and organizations in the Japanese market. It would, of course, be premature to discuss these matters as yet. However, I am convinced that the eventual result will be:—

- "1. The adoption of more satisfactory photographic standards for estimating seriplane evenness.
- "2. The adoption of more satisfactory seriplane standards for estimating neatness.
- "3. The adoption of more definite designations for cleanness defects and the adoption of standardized methods of mounting and penalizing such defects.
- "4. The adoption, in both markets, of a system of classification which, while it may not be absolutely uniform, will show lesser differences than have existed in the past."

D. E. Douty, vice-president and general manager of the United States Testing Co., Inc., whose personal efforts contributed so greatly to the success of the conference and the subsequent efforts at standardization, makes the following review of the technical developments since the conference:

"It is only necessary to look back to the attitude of the silk industry toward testing and classification at the time of the First Technical Silk Convention in Paterson in the fall of 1915 and recall the slow, laborious progress during the subsequent eleven years, up to the publication of the Second Report in 1926, to realize the great advance which has been made since the Second International Technical Raw Silk Conference in New York during October 1929.

"Marked and substantial progress has been made in

the development and application of Methods of Testing and Grading of Raw Silk in the past eighteen months, but the greatest results have probably been the intangible changes in the composite mental attitude of the industry as a whole towards more accurate methods of determining quality.

"The earlier attitude that degrees of quality could only be determined by a man with years of experience in the actual handling of raw silk "with his hands" so that he had acquired a high degree of sensitiveness of "touch," "feel," "eyesight," and indefinable judgment, has almost entirely disappeared.

"With this gradual elimination of the individual judgment and caprice of the older type of "raw silk inspector" there has been an equally gradual weakening of the raw silk interests' resistance towards the movement to standardize grades by means of what were formerly termed, rather deprecatingly, "mechanical tests."

"In the New York market this resistance disappeared, almost over night, with the formation of the National Raw Silk Exchange during the summer of 1928. The immediate necessity for establishing a system of definite grades upon which to base and complete future contracts was apparent to all. The raw silk merchant became both a buyer and seller in the New York market.

"The Second Conference, therefore, opened in a very propitious atmosphere with all interests represented in the American delegation keen to accomplish the greatest advance toward international standardization.

"Of even greater importance than this was the capacity for good will, confidence, mutual esteem, and cooperation which had been developed and proven at the First International Technical Raw Silk Conference in Yokohama in the spring of 1928.

"With these two important cornerstones as a part of its foundation, the Second Conference developed at once into a group of technical men, subordinating special interests and individual ambitions to the promotion of the general good and the advancement of what were recognized as mutual interests.

"The spirit of that Conference has been amply demonstrated by subsequent developments. The Italian, Chinese and Japanese delegations have returned to their homes and have entered at once upon the problems involved in the various differences. Readjustments of conditions in the light of reason have led to removal of many differences. The Japanese have made a very generous and sincere endeavor to meet the American desires, as far as they were able to determine them in the somewhat unorganized presentation of the American views and where reason and fairness appeared to support those views.

"They are including in their recommendations to their Association some very gratifying concessions to the American methods.

"Within our market there has been a decided inclination to view with esteem and appreciation the work of our Japanese associates. The mental attitude of the American Raw Silk Classification Committee towards scientific data and technical proposal originating in Japan has undergone a complete change since the Second Conference. The insistence upon the adoption of individual methods, and personal fads is fading from the Committee's work and there is a genuine desire on the part of all to find a common and internationally acceptable solution to this great problem of an important international industry."

The above is the quintessence of the opinion expressed by the contributors in this market. Since the undertaking of the symposium, the two major events of the raw silk year have completely overshadowed the contributions of individuals. A practical interpretation of these is offered by Henry Schniewind, former president of the Silk Association of America, and as such presiding officer at the conference, who states that:

"The careful buyer of raw silk today seldom makes a contract without including specifications of grading that are included in the standard. Such provisions are a distinct advantage in checking deliveries and in judging the performance of that silk in the loom or knitting machine and its final appearance in the finished merchandise. This is especially valuable to the manufacturer who is not in a position to employ silk experts of his own. It gives him a practical, easily verified standard from which to purchase and also establishes for him a definite basis on which he

can substantiate any justified claims either in cases of rejection or settlement of controversy by arbitration."

The Japanese seem to paint a slightly less sanguine picture of the near future. The opinions expressed by Takio Ito of Mitsui & Co., while rather more emphatic than the general opinion of that part of the Japanese group which he represents, nevertheless is substantially the thought of that group. Mr. Ito says that:

"In the last conference held here a year ago, every paper presented by the Japanese committee was the result of one and a half years' study after the first conference. A number of the authors of these papers set aside their daily work and devoted themselves exclusively to the study and research. Only the findings that were agreed upon by the entire committee were embodied in the various papers submitted. On the other hand, the papers presented by the members of the American delegation were all individual and were not representative of the opinion of the majority of the principal manufacturers in this country. Most of the American papers practically dealt with the requirements for broad silks and hosiery separately but did not deal with the classification of raw silk as a commodity. Under the circumstances, the Japanese Committee was rather disappointed and they did not get one representative opinion of the whole market here. In my personal opinion, it is not fair to the committee coming from a distance at no small expense to hold an International Meeting without well prepared representative papers. A premature International Conference does not deserve the expense incurred and the time sacrificed by busy men.

"I understand that already in some quarters the opinion is expressed to hold the third meeting next year in Japan. I doubt very much if such a suggestion was made with serious consideration as to whether we are sufficiently prepared for another Conference. When I was in Japan during May to July this year, I was told by many parties in the market that no further progress had been made by the Classification Committee there since the last International Conference. With the raw silk market completely demoralized, as it was then, they told me it was not time for them to make efforts in such a direction, as they were busily engaged with affairs more urgent. Before we hold the next meeting, I feel that every committee representing one market should be well prepared so as to present representative ideas after diligent research and competent studies."

BUSINESS SITUATION AS IT AFFECTS SILK INDUSTRY

(Continued from page 50)

and adaptability are used in gauging and meeting the ever-changing requirements of the market.

One of the conditions to which producers may have to adjust themselves is a permanently or semi-permanently lower level of prices than has existed in recent years. Since this condition, if it develops, will be due primarily to factors in the raw material market and in the international position of the money-metals, it need have no adverse effect on silk manufacturers' profit margins. It will, however, react on the total dollar value of business, except as the lower scale of prices is offset by expansion in the volume of sales.

An important factor in the outlook for raw material prices is the peculiar situation that has arisen in Chinese exchange as a result of the decline in the price of silver. Chinese exchange fluctuates very closely with market fluctuations of silver bullion and in the long run is controlled by the price of silver, although over short periods the situation is frequently reversed.

Supplies of silver are large and promise to continue so. Silver production as a by-product of copper, lead and zinc mining has become so important that about 75 per cent of the total output is now obtained in this way. Relatively large quantities of silver, therefore, come on the market regardless of the price.

The long-run factors of supply and demand, therefore, clearly point to a low price range for silver. Short-term fluctuations are almost impossible to foretell because they depend so largely on the rapidly changing Chinese economic and political situation and on the activities of speculators, especially in the Far East. But it is reasonable to expect that the silver situation will continue for some time to exert a depressing influence on dollar prices of raw silk.

COLOR HARMONY BY MATHEMATICS

AT an exhibition of the science and art of color, at the Museum of Science and Industry in the City of New York (220 East Forty-Second Street) there is an exhibit of peculiar interest to the silk industry, although the system it illustrates is designed for use in a variety of industries.

The practical application of the Munsell Color system, which had until recently been merely an academic theory seldom applied to industrial use, is the basis of the exhibit, which demonstrates the possibility of measuring the three dimensions of color, and to co-ordinate any number of color variations in perfect mathematical balance.

The value of such a system to the silk industry becomes immediately apparent when it is realized that the mathematical balance in color is that co-relation of the varying hues, values and chromas which most pleases the human eye, and which can be repulsive to no human eye—normal, abnormal or subnormal.

The Munsell system sets forth that color may be measured by three dimensions: 1. Its hue, that is, the quality by which one color is distinguished from another, as a red from a yellow. 2. Its value, that is, the quality by which a light color is distinguished from a dark one. 3. Its chroma, that is, the quality by which we distinguish the strength or weakness of a color.

For example, an emerald and a grape may both be green, and also may be light green, but there still remains a difference—namely the color of the emerald is strong, while that of the grape is weaker.

These qualities are all incorporated in a sphere, which becomes the yardstick by which each is measured. The equator of the sphere is divided into ten equal parts, representing ten divisions of the color variation of the spectrum. The parts are designated by the initial of the color they represent, as R for red, BG for blue green, etc. Thus the equator becomes the yardstick upon which the hue is measured.

In like manner, the pole of the sphere is divided into ten equal parts, which measure the degrees of value of a color, with zero representing black and ten representing white.

The chroma is measured by a shaft beginning at the pole upon which the degrees of strength of weakness are measured.

With these yardsticks to measure the dimensions, color harmony may be achieved by following certain rules. When two colors are used, they should be taken from directly opposite points on the "equator" of the

sphere, or they should be neighbors on the "equator." When more than two colors are used, they should be combinations of neighbors and opposites.

The amount of each color to be used in a given design to produce perfect harmony is determined by a simple formula: The areas should be inversely proportionate to the products of the symbols. For example, let us suppose a design is to be made up of two colors, the first of which is red in hue, of medium value and strong chroma. This would be expressed thus: R5/10. Let us say the other color is to be the opposite of red, namely, blue green; and that the value of this shade is to be medium, and its strength medium. This would be expressed thus: BG5/5. The product of the symbols of the first color is 50 (attained by multiplying five by ten) and that of the second color is 25 (attained by multiplying five by five.) Inverting these

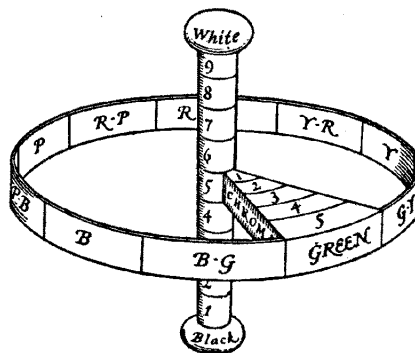
products, we conclude that there should be 50 parts of the blue green hue to 25 parts of the red hue, or, reducing this to its simplest form, twice as much blue green as red. This would give us a design in perfect harmony.

The exhibit is shown by Arthur S. Allen, color engineer, with offices at 230 Park Avenue. Thus far, Mr. Allen has confined the use of the system to designing advertising and display material, and has recently entered the textile field.

Silk fabrics are sold today, and have always been sold, to consumers of discriminating taste. It is a serious matter when goods intended for general public consumption are repulsive to the eye, but it is a much more serious error to attempt to sell such an article to the quality consumer.

The system has on numerous occasions proven its infallibility. Its most striking triumph occurred when the originator made a study of some of the world's most famous paintings, and found that the artists, whose sense of color harmony was of course highly developed, had distributed the various colors in exact conformity to the Munsell system. This was true notably of Rembrandt's *Dutch Woman*.

Recently, Mr. Allen was asked by a cotton goods producer to choose the most nearly harmonious application of certain designs which had been printed in various color combinations. He made his selections on the basis of the Munsell system and subsequently, sales records were consulted, and showed that in each case, the color combination which, by mathematical measure, was most harmonious, had been far in the lead in sales.



The Color Sphere

WOMEN IN THE SILK INDUSTRY

"The Silk Department in Every Retail Store Should be a
Source of Help and Guidance to the Woman who is in
Search of Individualism in Dress"

AT a time when the attention of everyone in the industry is focused upon the promotion of silk sales, it is perhaps interesting to study the success of a woman who has made this her life work.

Miss Lillian Callahan, fashion director and stylist, of H. R. Mallinson & Co., Inc., for the past ten years, has recently returned from a nation-wide tour of all the important cities in the United States where she has visited the larger retail stores.

In her efforts to reach the ultimate consumer she has lectured to thousands of women, telling them the advantages of custom-made clothes and how to select designs and patterns best suitable to their requirements.

To illustrate her talks, Miss Callahan displays models of various costumes suggested for street, daytime, afternoon and evening wear. On her present trip to the fashionable resorts of the South, including Miami, Palm Beach and Jacksonville, Miss Callahan presented a collection of thirty-five models in the newest fabric creations by Mallinson of Southern and advance Summer fashions. Several costumes from this latest fashion presentation are illustrated elsewhere in this issue.

One of the great difficulties Miss Callahan found in talking to a large audience was to so word her message as to be helpful and yet not to offend. Naturally, there are many types of faces and figures which go to make up an audience, and she had had more than one amusing and at times, nearly disastrous, experience, the most sensitive type, perhaps, being the woman who has reached the so-called age of discretion and wears an increasingly doubtful size forty.

"However, contacting the customer direct is the most effective means of advertising in every phase of business," Miss Callahan said:

"In our particular field, this contact is almost a necessity. I believe a greater number of women would employ their own dressmakers if they could feel more confident in their selection of color, style and material as suited to their personalities. This is the assurance that fashion shows instill."

The results obtained from these fashion presentations have been increasingly satisfactory. Repeated inquiries from retail stores all over the country have evidenced the consumer-interest aroused following the fashion shows, and stimulated sales.

The short talk direct to the customers with suggestions of style, color and material to be worn by

individual types of women, invariably encourages numerous questions. The years of research which Miss Callahan has devoted to the study of feminine attire qualifies her to

answer these inquiries expertly. Miss Callahan looks forward confidently to the time when the majority of women will be educated to the point where they will be able to supervise their dressmakers in the designing of costumes and in the selection of materials.

"With the realization by women that mass production has made each one a carbon copy of the other in appearance, sales of fabrics over the retail counter reflect a steady increase in the desire of women for originality in costume," Miss Callahan averred.

It is her theory that every silk goods department in the stores of the country should be a source of help and guidance to the woman who is in search of individualism in dress.

It is a well known fact, of course, that one of the most important elements in fashion today is that of color. Color accent and harmony have even extended to accessories. Miss Callahan has long been interested in this phase of her work, and has made extensive experimentations. Within the past ten years Miss Callahan has created for H. R. Mallinson & Co., hundreds of original shades by combining from two to seventy-five variations of color tones.

The outstanding characteristic of Miss Callahan is her ability to throw herself wholeheartedly into whatever work is required of her at the time.



Lillian Callahan

THE executive committee of the Textile Integrity Guild has voted to conduct an inquiry into over-production in all branches of the textile industry, with special emphasis on the subject of night work. A. D. Whiteside, President of R. G. Dun & Co. and the National Credit office was unanimously elected chairman of a committee with full power to appoint sub-committee chairmen covering—cotton manufacturers, commission houses, converters and finishers, silk weavers and silk finishers, woolen manufacturers and converters, rayon yarn producers, linens, retail department stores, and wholesale distributors.

THE FUTURE OF GRENADINES

GRENADINE yarns, product of a new age, stand at the crossroads—a crossroads that may lead to a busy and prosperous life or to oblivion, if the opinions of certain prominent throwsters and hosiery men are to be accepted.

There can be no doubt that grenadine yarns produce a high quality of hosiery, pleasing to the consumer because it is sightly, because it is resilient, and because it is less susceptible to runs and to fuzziness resulting from contact with rough surfaces.

But its marketing—marketing on a large scale, faces some very definite obstacles.

One school of thought believes that the crying need at present is for intensive promotion. These men are convinced that all that is necessary is to impress upon the consumer the superior qualities of grenadine hose, and that once this is done, those who are willing to pay slightly more for their hosiery will never use any other.

There is another group which is firm in its belief that the entire future of grenadine hosiery lies in the hands of buyers for department stores. One of this group—a man whose knowledge of every angle of the hosiery industry establishes him as an authority—illustrated his point in this fashion:

“A few days ago, a buyer for a large Manhattan department store secured one thousand dozen pairs of grenadine hosiery, with resist-stripes, fashioned in the latest mode, and with the latest colors well distributed in the lot. These hose were distress stocks, purchased from a firm ready to take any offer to recover a portion of its losses.

“The store had a glorious opportunity. These thousand dozens could have been placed on sale at \$1.65 a pair, giving the store a handsome profit, giving the consumer a truly good bargain, and offering an excellent chance to convince nearly 10,000 women of the advantages of grenadine hose. At the same time, the store could have exulted in its scoop on its competitors, and the buyer could have covered herself with laurels when the accounting department made its report of the profits accruing from her triumph.

“But this particular buyer, like many others, is concerned chiefly with impressing upon other buyers how smart she is. And, in order to make the victory more spectacular, the hose were placed on sale at a dollar a pair. The store made the same profit it had been making on the usual dollar hosiery, and there was little attempt to promote the superior quality of the hose.

“The result is that many women have paid a dol-

lar for hosiery worth much more. And when they want to replenish their supply, they will consider anything more than one dollar an unfair price.

“A little more of such tactics is likely to spell the doom of grenadines.”

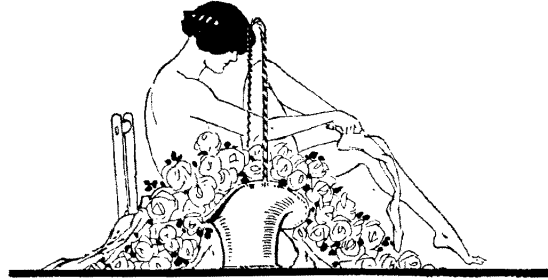
But aside from this practice on the part of some buyers, there is a general disinclination of buyers to purchase in quantities beyond the most minute of immediate needs. With buyers thus keeping one eye constantly upon the raw silk market, hoping for further declines which would

eventually be reflected in hosiery prices, little can be accomplished in the way of future production.

Knitters complain of multiple difficulties experienced with grenadine and crepe yarns, citing chiefly trouble in knitting, too many seconds, and complaints from retailers that the buying public did not find the stockings knitted from grenadine and crepe to come up to the claims of additional strength and wearing quality which some advertisers had stressed. Throwsters, by actual laboratory tests, are said to have proved beyond the shadow of a doubt that the thread to which a higher number of twists is given should show an increase in breaking strength. But, it is claimed in some quarters that when applied to the knitted fabric, the higher strength has not obtained. The claim is even made that the majority of tests on knitted fabrics made from grenadine and crepe, as compared with fabrics knitted from a five turn tram, show the tram stronger.

With this in mind, knitters, realizing, too, that there will always be at least some demand for grenadine stockings, are seeking a type of yarn with which they will have less knitting difficulty and a less amount of irregular merchandise. Some knitters, it is asserted, are reverting to the use of the regular hosiery tram, the twist of which has been stepped up to meet the demand for a dull luster. Tram yarns formerly twisted five turns to the inch are now being spun with 10, 15, 20 and sometimes 25 turns in one direction.

Thus, the problems confronting grenadine are many and varied. There must be promotion, but it must not make extravagant claims. Buyers must be induced, by some method or other, to refrain from certain tactics. Knitters must be given as assurance that their yarns will not be inferior—and to give this assurance, it must be kept in mind that grenadine and other high twists require higher grades of silk for equivalent evenness and cleanliness due to the tendencies of high twists to emphasize these defects.



THE QUEST FOR HOSIERY FACTS

STATISTICS which, it is confidently expected, will break down the onus now resting upon the full-fashioned hosiery industry by virtue of figures gathered by the U. S. Census Bureau showing stocks totalling 3,900,000 dozen pairs on November 1, 1930 are being compiled by the Industrial Research Department of the University of Pennsylvania.

The funds with which the survey is being conducted are a part of the Carnegie Foundation donated to the University for the specific purpose of carrying on statistical research. It was stated in this JOURNAL last month that the National Association of Hosiery and Underwear Manufacturers was reported to have offered \$100,000 for the support of the business research division of the university. This report was incorrect, and we deeply regret that it was given circulation by this JOURNAL.

The survey has been undertaken by the University's Industrial Research Division with the wholehearted co-operation of the Association. Both groups were in agreement upon this contention: that the figures issued by the Census Bureau, while they could be accepted as accurate, are exerting more harm than good in their present form. Obviously, there was need for more complete data, and although the University had the funds and facilities, there was no doubt that individual manufacturers would be hesitant about divulging statistics. It was within the province of the Association to advise members to answer questionnaires. Thus, it was agreed that the survey be carried out by the University, with the co-operation of the association.

Manufacturers are assured that all information will be kept in strict confidence, and that the identity of individual firms will be carefully protected.

The value of the survey lies in this situation: Hosiery buyers, scanning the U. S. Census Bureau figures, say to themselves that with stocks reaching the staggering total of 3,900,000 dozen pairs, prices must soon be reduced, and for this reason, they buy only for immediate needs, and see to it that these needs are kept at a minimum. But the National Association of Hosiery and Underwear Manufacturers believes that much of the stock is unsalable. Moreover, it is likely that there may be an actual shortage in certain numbers.

To meet this situation, the survey will gather three types of data: first, reports on stocks in each gauge, to be compared with unfilled orders and irregu-

lars in each gauge; second, reports on total stock in each gauge, classified according to type: that is, tram silk hosiery, hard twist, ingrain, etc.; and third, a breakdown of the total stock, by weights or threads of the hosiery.

Thus, it will be possible to show just how much of the 3,900,000 dozen pairs are salable, and just how great are the stocks of any particular salable item.

The primary purpose of the survey, from the standpoint of the Association, therefore, will have been served, for buyers will be confronted with a true picture of the situation.

An additional advantage will be the ability of manufacturers, by comparison of the figures for the industry as a whole to their own individual statistics, to bring the relationship of production to demand down to a practical, profit-making basis.

The questionnaires for the first set of figures were sent out at the beginning of the year, and if the response is at all commensurate with the wishes of both the University and the Association, figures will be available early in February.

In connection with this survey, the University is also asking manufacturers to state the number of machines and machine sections scrapped in 1930, and this total will be compared with the number of new machines installed during last year. This will give authorities some measure by which to combat the growing cry of obsolete machinery. If machinery is obsolete, this survey should prove it.

Meanwhile, there is some discussion of a continuance of the survey on a monthly basis, with mills regularly reporting. In its present form, the survey will give figures as of December 31, 1930, which of course will be valuable for a time in their own right, but will soon be of value only for purposes of comparison with newer figures. It is hoped that before long it will be possible to compute the trend in production of each of the various numbers. This of course could be compared to consumption of these numbers, as a guide to production, and would also furnish a yardstick of the shifting of consumer demand.

THE monthly review of textile trade conditions issued by the Tubize Chatillon Corporation, which has appeared under the name of "The Textile Economist," will henceforth be known as the "Textile Organist." The new name appears for the first time on the January issue.

How the University of Pennsylvania plans to minimize the depressing influences of the Census Bureau's figures on full fashioned hosiery stocks by digging for the true facts.

pH CONTROL

The quality and condition of the water used in the silk and rayon industries for processing, dyeing and printing has a profound influence on the quality of the product of the plant. pH determination has become of great fundamental importance to these industries where water is used in volume in processing, and also in the manufacture of dyestuffs and chemicals, and in power plant operation. The Philadelphia Quartz Co. in the following, presents some particularly interesting information on pH control.



THERE was a time when the word voltage did not convey a clear idea to most people. It meant something about electricity but did not suggest anything akin to the pressure in a water main or in a locomotive boiler. Gradually volts came to be recognized as a measure of quality distinct from quantity. It is an expression analagous to pressure or heat and is now so familiar that power companies can warn off the most aimless wanderer with a placard bearing the legend "30,000 volts."

Those of us who inhabit the realm called "middle age" have had to learn most of the chemistry for current needs since we left school, or at least the language by which it is expressed. The symbol pH had no more meaning in the last century than television or the Queen Maud Mountains.

Those of our readers to whom pH is a daily working tool will perhaps pardon us if we traverse some ground already familiar, for this expression is associated with a concept which has become very important in the modern developments of silicates of soda in industry. In parenthesis we remark that pH is much simpler to say and remember than most of the terms of medicine or the radio art. This should shorten the time needed to make it familiar to everyone.

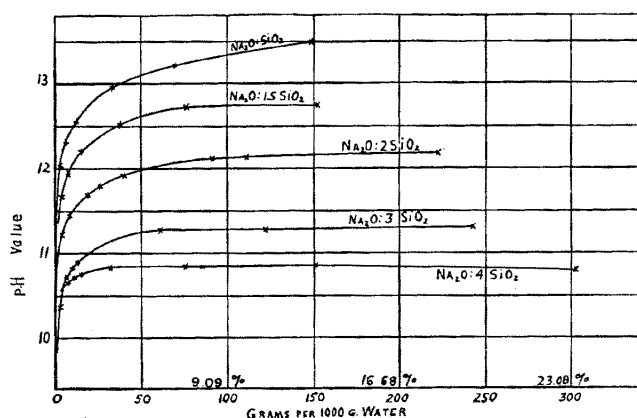
Like the voltage of electricity, the pH of a solution is a measure of intensity. It is possible to have an ample quantity of electric current flowing through the line, but if the voltage is so low that the motor will not turn over it is quite useless. There is a pressure below which the finest steam engine will do no more work than a tea kettle. So the performance of alkaline solutions is dependent, not only upon the amounts of alkali they contain, but also upon the pressures at which it is available. It would not serve our present purpose to discuss the rather involved derivation of our subject. Old chemistry books describe solutions as

acid, neutral, or alkaline, but now we have learned that such expressions do not give sufficient information. There are degrees of acidity and alkalinity which we express on the pH scale just as we read temperature on the scale of Fahrenheit, relative density or concentration on the scale of Baumé, or barometric pressure in millimeters of mercury. They are more or less arbitrary devices for making numerical comparisons which help our thinking and enable us to record our observations. Zero on the pH scale represents the most acid condition, fourteen, the most alkaline, with seven as the neutral point. The most accurate method of determining pH is electrometric, although for many purposes the changing colors of dyestuffs enable us to gain quickly a close approximation to the value of a solution. The fading color of tea to which lemon is added is a change of this type. Europeans are familiar with the return of certain pale amber liquids to the blue of the grape when the tartaric acid which they contain is neutralized with alkaline mineral waters. Thus, by selecting a suitable coloring material, it is possible to quickly adjust the pH of an industrial solution by increasing the degree of alkalinity until the color matches a standard which is known to be right.

For example, a large plant had trouble with corrosion of its condensing system but found that this could be entirely avoided by feeding into the cooling water a small quantity of silicate solution such that the water gave a full blue color to a solution of bromthymol-blue which represented a pH slightly above 7. If the water became faintly acid, yielding a green or yellow color, it was necessary to add a little more silicate. Similarly in precipitating a solution of silicate in paper pulp to produce the well known hardening effects, a pH of 4.5 is sought and here we have the choice of several colors which conveniently indicate the conditions most favorable to the reaction. At 4.5

brom-phenol-blue is purple, brom-cresol-green is green, and methyl red is a bright pink color. When turbid or strongly colored solutions are encountered as in wash liquors it is necessary to use a standard in which such factors are taken into account. Some colors are so strong that the indicators are useless and recourse must be had to electrometric methods.

Now silicate solutions differ from other alkaline salts by virtue of the fact that their chemical quality, as expressed on the pH scale, can be varied over a wide range to meet the requirements of many processes. Although sodium metasilicate is a definite salt, commercial silicate solutions may have larger proportions of silica to soda until a composition of one part soda to four parts of silica is reached. Any intermediate between these extremes can be prepared. As the ratio of silica increases, the pH of any given concentration declines as indicated in our graph. It thus appears that



we may have a strong solution of silicate with a pH below 11 or a weak solution with a pH of 13, a fact which is of large significance in considering such operations as industrial washing. These solutions have the further interesting property called buffer action, which means that they tend to hold the pH steady in the course of processes in which the silicate is spent either by reaction with acidic materials or hard water. By increasing the dilution, as in the case of the rust prevention treatment, it is possible to reach any pH down to 7, and there are uses in which the presence of silica dispersed in an acid medium is desirable. By appropriate choice of dilution, silicates of soda may be used to prepare solutions at practically any point on the pH scale, although there are concentrations at many points above which the silica does not remain dispersed in a stable condition and will separate as a precipitate or gel.

The units of pH are so chosen that from one number to another the relation of the hydrogen ions changes tenfold. It is thus clear that among silicate solutions we have the possibility of an extraordinarily wide variation of chemical activity though there are, of course, bounds beyond which no way has been found to go.

For instance, no silicate solution has yet been produced which has strong adhesive properties and at the same time a pH as low as 7. Such a discovery would be extremely useful as it would avoid difficulties in the staining of papers which contain sensitive colors and which are often so porous that it is very difficult to keep the adhesive in the joint. In many cases there are ways of circumventing such difficulties as by the use of more viscous solutions or by adjustment of the mechanical conditions.

The keynote of modern manufacturing operations is control. Economical production requires that processing shall be done under the most favorable conditions every time. Many industries have found that observation and adjustment of pH brings with it marked economies and improvements in quality. Among alkaline solutions particularly, such control is made simpler and more effective by the use of silicate solutions which act in a manner comparable to a fly wheel, adjusting irregularities, and tending to make chemical action steadier and more uniform. Although other salts have similar action none is able to make it effective over so wide a range as is possible by appropriate choice of soluble silicates.

NEWPORT INTRODUCTIONS

A FULL, bright scarlet on cotton, rayon, wool and silk, both pure and weighted, is produced by Newport direct fast scarlet 3 B. It is very level dyeing, exhausts at a moderate rate of speed and is only slightly influenced by metals. Because of its very good fastness to light and good fastness to washing when dyed on animal fibers, it finds extensive use for this type of work. It discharges to a slightly creamy white.

A neutral dyeing acid color, Newport fast orange F S W, possessing very good fastness to light and excellent fastness in most other important particulars, finds extensive use in dyeing silk, either pure or weighted.

Anthrene Brilliant green 4 G double paste fine, is particularly of interest for direct printing on cotton, rayon and pure silk. While primarily a printing color it dyes very well on cotton and rayon. The fastness to light and boiling soap is very good; it does not discharge.

A N enlightening message," from Drucker & Baltes Co., photographers, announces a glass bulb producing an instantaneous light equal to sunlight, which is silent, smokless and safe. The firm now uses it exclusively.

Much favorable comment has been elicited from silk men gathered at banquets where photographs have been taken by the new process. Our supplement dinner picture was made by this firm.

CHECKING UP LOOM PERFORMANCE

IN a recent announcement to the trade it was stated that it would be interesting to see census figures, if there were such available, of the number of silk looms built over twenty years ago that are still in operation. To those who habitually make the rounds of the weaving mills in sections where all silk, silk and rayon mixed fabrics are manufactured for dresses, linings, cravatings, drapery and upholstery goods, and come in direct contact with weaving equipment, it is apparent that there are all together too many of these old looms in operation. It is said that the industry would fare better if all the old machinery were scrapped.

Fortunately, there is an increasing number of firms who make it a practice to junk antiquated machines and replace them with the most modern types.

Breaking up the old looms removes them from competition. Getting rid of old looms by selling them to someone to be used again is not a good business transaction. The small price obtained for the old machine brings poor satisfaction if it is to be operated in competition as is invariably the case.

How can such looms compete successfully with modern looms? The answer is that they can not, in quality of product, in volume, cost of upkeep, nor in the cost per yard of woven goods, can they approach the performance of the modern loom, refined to a point unthought of ten to twenty years ago. The question for the mill owner to ask himself is "what showing does our equipment make in turning out first quality fabrics of the wanted style?"

Having faith in the future of your industry, can there be a more acceptable time than the present for putting the weaving department on an up-to-date basis? You can take the bull by the horns and scrap the old stuff without further ado, or you can plan to get rid of the out of date stuff by timing replacement with modern equipment, thereby causing little or no disturbances in production.

"It is a cost per yard proposition today." Keen competition among the mills has directed attention to the importance of modern machinery as never before.

In their latest announcements, The Stafford Co., manufacturers of weaving machinery, Readville, Mass., state that they have and are giving their utmost in time and thought toward solving the problems of the weaver and in pointing out an easy way to check silk loom performance for quality of output, present fourteen points that are incorporated in the construction of their silk loom, as follows:

Take-up motion mounted on brackets on the heavy loom side to avoid strains on cloth roll stand.

Shock absorbing device on the bunters, which are mounted on the frame itself.

Cast iron pitmans made to exact length, fitted with split bronze bushing and adjusting device.

Bottom shaft has two support bearings in addition to the two main bearings, (anti-friction roller type supplied on specification).

A new Stafford reed holder is pivoted at the center of balance, compensating through a cam against a minimum of spring resistance to obtain an even beat at the fell with a minimum of wear. It will weave crepes without the use of automatic let-off motions and produce even goods.

Removable cloth roll.

Automatic release of lay from take-up motion when loom is stopped.

Independent brake and shipper motions.

Picking motion is combination of best features of Honegar and Batwing types.

Special rectangular alloy steel pick shaft with positive clamping ball carrier.

Many important bearing supports are cast into the frame.

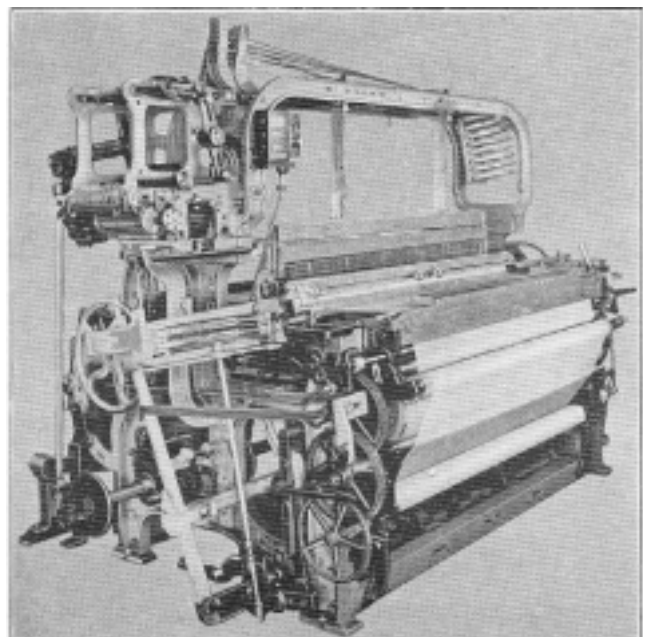
Heavy, big-span girts and frame milled at contact points to insure perfect fit.

Shuttle protected in the shed and more accessible.

Sand drum mounted in bronze bushed bearings or, on specification, in self-lining roller bearings secured by copped bushings.

The loom as recently photographed fully equipped, with dobby, multiple boxes and otherwise equipped to make an unusually wide variety of all silk, silk and rayon or all rayon fabrics, is shown in this article.

The Stafford Company has recently announced a



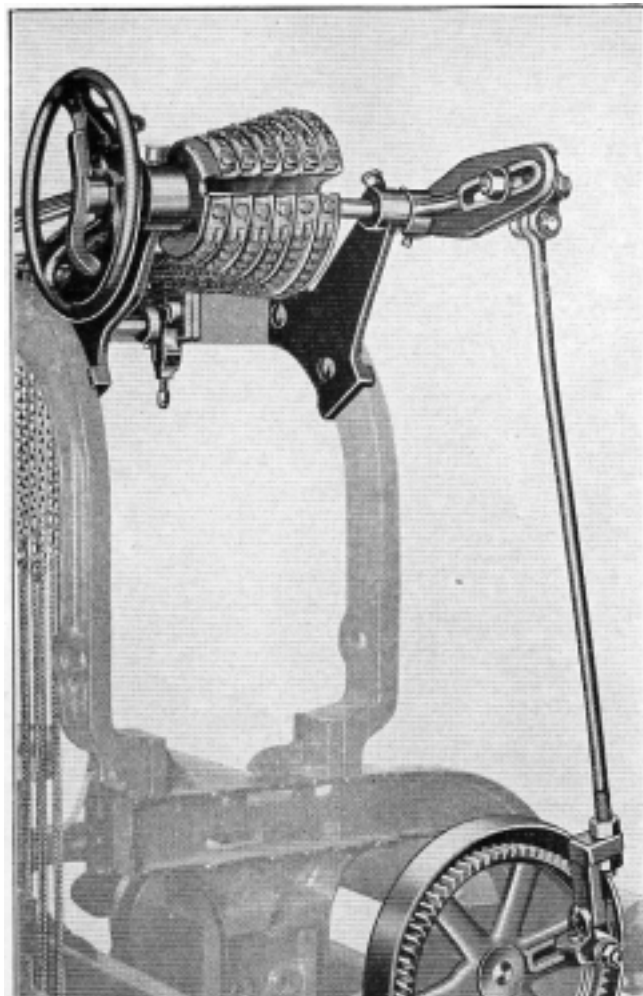
A silk loom designed to weave a great variety of fabrics.

new cone motion for silk looms. Its most important new feature is a harness levelling adjustment so arranged as to be in easy reach of the operator at the front of the loom. The resetting of harnesses is accomplished by means of a large hand wheel at the front of the loom, the wheel being large and accessible so that little strength is needed to reset a large number of harnesses to their normal position.

The illustration shows the locking motion at the hub of the hand wheel—a heavy spring latch that keys the hand wheel to the driving axle. The cone can be instantly released from the front of the loom, simply by lifting this latch. The latter is of heavy construction and is designed so that it will not wear loose.

Another new feature is the staggering of the upper and lower grooves to permit the use of grooves wide enough to accommodate heavy harness chains, which give much longer wear than the leather straps previously used.

This new cone motion can be driven either from the crank or bottom shaft. It was first brought out on new models of the Stafford S-1 loom for which The Stafford Company is having considerable demand from mills anticipating increased orders for plain goods.



New cone motion for easy harness adjustments

VESTAL PREDICTS SUCCESS OF HIS BILL

UPWARDS of a hundred textile men were assured by Congressman Albert H. Vestal, that the design protection bill bearing his name would in all probability soon become a law. He said, furthermore, that the law in operation will hurt no individual or firm that is honest. Congressman Vestal predicted the passage of his bill at an assemblage of representative men from the silk and cotton industries at a dinner given in his honor at Bound Brook, N. J., by Textile Engravings Inc., of that city.

Mr. Vestal said further that if the bill is passed by the Senate, it will mean the repeal of the existing design patent law, which has been inadequate for the creators and owners of fabric designs. This existing law takes up too much time and is too slow and insufficient to give protection in the quick-changing fashions.

He declared he could not see any difference between the man who burglarizes your home and steals your money and the man who deliberately copies your designs.

Congressman Charles A. Eaton, of New Jersey, T. A. Flockhart, president of Textile Engravings, Inc., and George E. Stone, vice president and general manager of the company, also spoke briefly. Mr. Stone explained that the company had invited the trades to visit the company's plant for a better understanding of the different branches of engraving, such as die-mill work, pentagraph work, hand-stipple engraving and machine engraving.

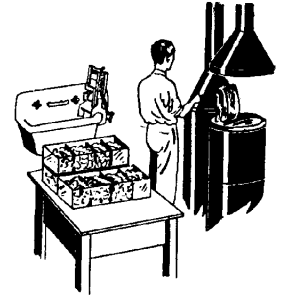
The visitors were, therefore, taken into the confidence of the company, and were accorded access to all departments. The workers were instructed to answer questions freely and explain the various processes.

Among the guests of the company at the plant and who also attended the dinner given in honor of Congressman Vestal, were the following:

Austin Cheney and Horace B. Cheney, Cheney Bros.; Ramsay Peugnet, secretary of the Silk Association of America, Inc.; William L. Friedman, Stehli Silks Corp.; W. H. Scott and J. R. Whitton, Colonial Fabrics Corp.; George C. Helpenstell, B. Edmund David, Inc.; E. C. Geier, Duplan Silk Corp.; A. L. Courter and Walter Taylor, C. K. Eagle & Co., Inc.; Charles H. Newcombe, Sr., Lyons Piece Dye Works; William Murray, Oriental Silk Print Works; William Orkin, the Otesaga Silk Co.; Sylvan Gotshall, attorney for the Anti-Design Piracy Group of the Silk Association; P. Sach, the Schwarzenbach Huber Co.; John Clendenning, Marshall Field & Co.; C. W. Emerson, A. Shortway and W. E. Bolter, the Textile Dyeing Co. of America; A. L. Cruger, the National Silk Dyeing Co.; William Willheim; Ernest Ruegg; Joel R. Drucker; J. W. Morrison and S. M. Dreher, of Morrison & Dreher; D. R. Grulich, Klein Bros.; C. A. Kilbourne, Wm. Skinner & Sons.

BOIL-OFF OF RAW AND THROWN SILK

The following is the fourth of a series of articles explaining the various phases and calculations component to silk testing. It is evident that there is some confusion in the trade about the correct application of the standard raw silk tests. Through these articles, prepared for The American Silk Journal by the United States Testing Co., it is hoped to define in lay terms these tests and their proper application.



IN the raw silk fiber there are two distinct parts, the central portion which is the true fiber and is termed chemically as fibroin and an envelope compound referred to as silk gum and spoken of chemically as sericin.

The gum present on the silk varies considerably with the various classes as shown in the following table taken from the 1929 statistics of the U. S. Testing Co., Inc.

	Per cent	Per cent
Italian	21	to 26
China	16	to 24
Canton	21	to 25
Tussah	8	to 11
Tsatlee	18	to 21
Japan	16	to 24

In the case of raw silk, boil-off tests are as important as conditioned weight tests in determining quantity as the amount of useful fiber contained in a bale of silk depends in the majority of cases upon the amount of clean fiber remaining after the manufactured product has been stripped of the gum by boiling off.

The sales contracts for raw silk bought in the New York market contain no clause regarding the amount of gum the silk contains so boil-off tests play no direct part in the actual selling and buying of raw silk but are necessary for quantity checks in mill control work and for calculating clearances.

To determine an official clearance or in other words the percentage of waste made in the throwing operation, the Silk Association of America states that two conditioning tests and one boil-off test shall be made on each five bale lot of raw silk. Of course in addition to the official quantity tests on the raw it is necessary that quantity tests be made on the thrown. The tests on the thrown silk will be discussed later.

Average Loss in Raw Silk Boil-Off During 1929

	Per cent
Japan, white	18.36
Japan, yellow	21.25
Italian	23.39
China, white	18.32
China, yellow	26.53
Canton	22.75
Tussah	9.89
Tsatlee	19.48

It is noted that the yellow Japan and China silks have about a 3 per cent higher boil-off than the white silk.

THROWN SILK—The fiber test which will be explained later has replaced the conditioned weight and

boil-off tests for determining the quantity of thrown silk. The boil-off test, however, is still made on thrown silk for mill control work and may be made in conjunction with the fiber test under the term of modified fiber test.

Average Loss in Boiling Off During 1929

		Per cent
Organzine	Japan, white	22.35
	Japan, yellow	24.89
Tram	Japan, white	24.17
	Japan, hosiery	24.30
	Italian	27.72
	China, white	24.75
Crepe	Tsatlee	27.00
	Japan	25.30
	Canton	29.56
	Georgette	25.62
	China	26.13
	Italian	30.38

CERTIFICATE FOR BOILING OFF		
HOBOKEN, N. J.		XX
John Doe		
MARK AND NUMBER	TEST MADE ON	10 skeins Japan Raw Officially
XX 1 Bale	SAMPLED	
DRY WEIGHT BEFORE BOILING OFF		112.30 GRAMS
DRY WEIGHT AFTER BOILING OFF		91.80 GRAMS
LOSS IN BOILING OFF		20.50 GRAMS

BOIL OFF **18.25** PER CENT

The above report is calculated as follows:

$$\frac{20.50 \times 100}{112.30} = 18.25\%$$

A throwster's clearance is calculated on the basis of conditioned clean raw fiber sent to the throwster and conditioned clean thrown fiber returned.

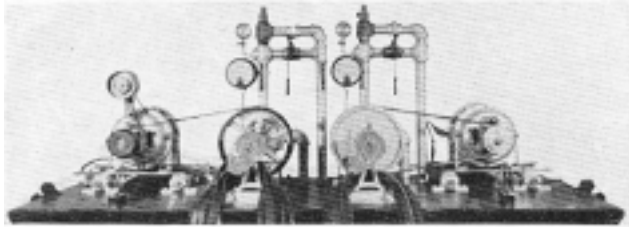
If the conditioned weight of a lot of raw silk was found by test to be 1359.74 pounds and the boil-off by test to be 18.25%, the conditioned clean fiber weight of the lot would be determined as follows:

Per cent	
100.00	
18.25	

81.75	
	1359.74 lbs. X .8175 = 1111.59 lbs.
	Conditioned clean fiber weight of lot—1111.59 lbs.

LEATHER BELTING OUTPULLS RUBBER

ONE of the most novel and most talked-about exhibits at the recent New York Power Show was the demonstration by E. F. Houghton & Co., Philadelphia, in which they proved that their Vim easily outpulls rubber v-belt. The photograph, fig. 1, shows Houghton's demonstrating apparatus which consisted



of two identical pumps and two identical motors. One unit was connected with vim leather belting and the other was connected with rubber v-belt. When the by-pass valves were closed the positive pumps developed a pressure against spring check valves. This load could be graduated up to 5 h.p. forcing slippage on the 4 h.p. v-belt drive.

The leather belt of 2 h.p. capacity was compared with two strands of rubber v-belt. The former pulled full load while the v-belt drive never pulled over 3 h.p. and then with from 25 to 100 r.p.m. slippage on the pump sheave.

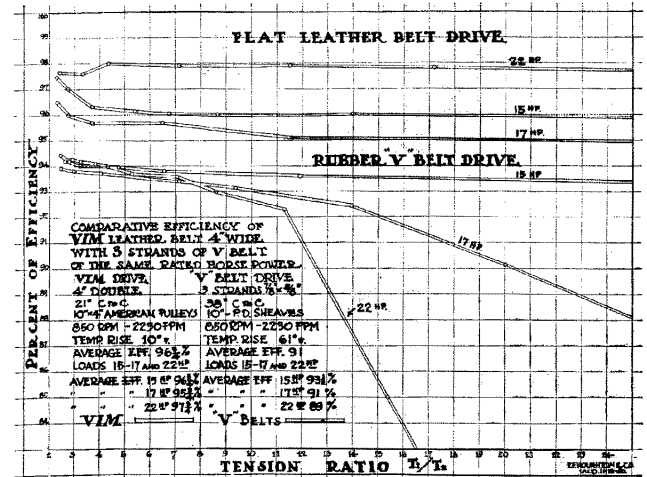
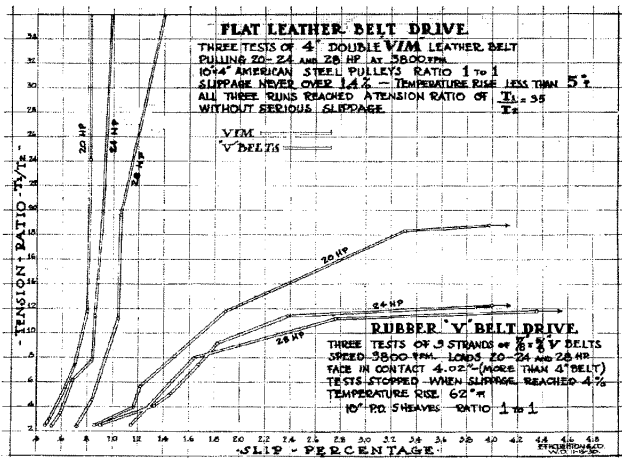
Every condition was as nearly the same as physically possible. Tensions were exactly the same. The pulley diameters were the same as the sheaves. The speeds were the same. The demonstrators offered to interchange the sheaves and pulleys whenever desired in the event that a witness should question the fairness of the comparison. The vim belt showed its superiority so positively that many onlookers were inclined to believe that there was a "catch in it." The demonstrators, however, permitted the visitors to operate the exhibit themselves and to do whatever they pleased to convince themselves that the demonstration was not fraudulent.

In addition to the machine demonstration the exhibitors showed scientific tests two of which are reproduced herewith. Fig. 2 shows typical test results comparing a 4-inch double vim leather belt with three strands of rubber v-belt. As will be noticed, the vim belt curves are almost vertical, which means that slip is practically nil. On the other hand the v-belt curves are almost horizontal, which means that the v-belt slips badly as compared with vim. These belts were made to pull 20, 24, and 28 h.p. respectively at 3800 feet per minute. The temperature rise with the leather belting was less than 5 degrees F. whereas with v-belt the temperature rise was 62 degrees F.

Fig. 3 shows that leather belting is more efficient than rubber v-belt by a considerable margin. At 22 h.p. 4" double leather has an efficiency of almost 98 per cent while three strands of 7/8" x 5/8" rubber v-belt at the same load has a maximum efficiency of less than 95 per cent, which drops off rapidly with increase in tension ratio. The principal data are given on the test sheets themselves, copies of which will be sent on request to any responsible person interested in power transmission. The manufacturers of vim leather belting further state that they will be pleased to have users of belting conduct independent comparative tests of their own.

SILK MILL OPERATIONS INCREASE

EMPLOYMENT in the silk industry increased 6.4 per cent in November as compared with the previous month, the Silk Association of America, Inc., reports. During the same period, broad silk loom operation increased 8.3 per cent, ribbon loom activity increased 22.6 per cent, and spinning spindle operations increased 4.9 per cent. Comparing November 1930 with November 1929, employment shows a decline of 5.6 per cent, broad loom activity a decline of 4.7 per cent, while ribbon loom operation increased 1 per cent, and spinning spindle activity 8.9 per cent.



RAYON TAKES HEART, SEEING DRASTIC PRICE CUT AS BOON TO PRODUCER AND CONSUMER

SOMETHING more than a mere reduction of prices was seen by both the rayon trade and consuming industries in the revised price schedule announced on January 9 by The Viscose Company, for in some quarters there is a distinct feeling that the ultimate effect of the move will be the elimination of certain evils that have afflicted the trade for some time, and for which no remedy had been apparent.

Students of the perplexing problems of the trade were more or less enthusiastic in their praise of what they termed the sagacity and the daring of the move. For they realized that even The Viscose Company cannot produce 150 denier, 40 filament yarns, for instance, and sell them for 75 cents and make a profit. And it was the courageousness with which The Viscose Company virtually served notice that it was willing to lose money on this and other grades until such time as the low price had driven from the field other producers who have been too prone to indulge in cut-throat practices that met with approval from the consuming trades.

Certain companies, whose sub-rosa dealings in yarns disposed of under the list prices have played havoc with the industry, will be unable to sell at a profit even at the new list price, much less at undercover concessions. This means that they must close their mills, for even the possibility of merger is not open to these particular producers, it is asserted. This contention is said to be based upon the further assertion that these companies have been virtually upon the market for months, with no buyers in sight.

Thus, leaders in the consuming industries who, in the long run have been the sufferers from the evils which they believe the Viscose cut was designed to correct, see a sort of poetic justice in it all. What could be better, from their viewpoint, than to see firms who have not stopped at cut-throat policies being brutally driven to the wall?

Next Move Upward?

And, in keeping with this interpretation of the motive behind the price cut, careful study of the entire situation seems to indicate, according to those in the consuming trades, that as soon as the undesirable producers have been wiped out, there must come a move upward. For, the object having been achieved, they say, it is only natural that Viscose will cease to lose money, and will then begin upon a new footing to produce for profit.

It is apparent that realization of this status will do much to promote a revision in the hand-to-mouth buying policies which have become so general in the trade.

When the victims of the cut begin to fall by the way-side, this should serve as a signal to buyers that the end of low prices is in sight. Naturally, it will be to their best interests to accumulate whatever stocks they can comfortably handle before the opportunity is lost.

In this connection, moreover, some consumers are prone to adjust their mental telescopes to a long focus, and as a result, they see eventual stabilization of rayon prices, the desideratum of both producers and consumers.

Effect on Consumption

In the meantime, the new price schedule was expected to result in a gain in consumption of rayon. With the raw silk market showing a firmer tendency, and rayon yarns now available at reduced prices, much of the loss resulting from the better bargaining position of silk will be recovered, it is felt. And because it is almost certain that some companies will be forced to drop out of the field, production will be substantially decreased, according to some students of the situation.

It is even considered likely that reductions will be possible in the retail prices of certain rayon and rayon-filled products, which may in part counter-act the forthcoming intensive promotional campaign for silk.

On the whole then, it is not surprising that those interested in the rayon industry—both producers and consumers—were somewhat pleased with the action of Viscose. For they see, as direct or indirect results: (1) elimination from the field of producers who had engaged in sharp practices, (2) eventual stabilization of prices, and (3) a better outlook for consumption.

RAYON YARN PRICE CHANGES FULL LUSTER

Den.	Fil.	First Quality			Second Quality		
		New	Old	Change	New	Old	Change
75	18	1.35	1.60	15.6	1.25	1.50	16.6
75	30	1.35	1.70	20.5	1.25	1.60	21.8
100	18	1.10	1.25	12.0	1.00	1.15	12.0
100	40	1.10	1.30	15.3	1.00	1.20	16.6
125	36	1.00	1.20	16.6	.90	1.10	18.1
150	24	--	.95	--	--	.90	--
150	36	--	1.00	--	--	.95	--
150	40	.75	--	--	.72	--	--
150	60	.85	1.15	26.1	.82	1.10	25.4
170	27	.75	.95	21.0	.72	.90	20.0
200	30	.75	.90	16.1	.72	.85	15.3
250	36	.70	.85	17.6	.67	.80	16.2
300	& up	.63	.78	19.1	.60	.75	20.0

DULESCO

75	30	1.35	1.73	21.9	1.25	1.63	23.3
100	40	1.10	1.33	17.2	1.00	1.23	17.8
125	36	1.00	1.23	18.8	.90	1.13	20.3
150	24	--	.98	--	--	.93	--
150	36	--	1.03	--	--	.98	--
150	40	.75	--	--	.72	--	--
150	60	.85	1.18	27.9	.82	1.13	22.1
170	27	.75	.98	23.4	.72	.93	22.5

RAW SILK FUTURES

NEW YORK

CONTINUING a rally which has been consistent since early in December, raw silk futures on the National Raw Silk Exchange gained more than 35 cents in the period from December 20 to January 20. Moreover, traders on the floor of the exchange were confident that this movement will continue in the same direction, with perhaps increasing intensity until the middle of or toward the close of February. A mild, or perhaps fairly serious reaction is expected to develop at that time, but it is confidently expected that this reaction will not nearly wipe out the gains thus far achieved.

The movement of spot prices has been definitely upward, gaining 37 cents from the first to the 20th of January, and reaching the highest point since the summer rally was wiped out early last September. This trend may be expected to continue, for it has a firm basis in the improved statistical position of silk.

	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sales	Spot
20 H	2.39	2.39			2.38	2.38	2.38			XX
L	2.39	2.39			2.36	2.36	2.35		66	2.64
22 H		2.39					2.39			
L		2.39					2.37		36	2.64
23 H	2.38		2.38	2.37	2.38	2.38				
L	2.38		2.38	2.37	2.37	2.38			39	2.64
24 H	2.39	2.39			2.39	2.39	2.40			
L	2.39	2.39			2.38	2.39	2.39		42	2.64
26 H	2.42	2.43	2.42	2.42	2.42	2.42	2.43			
L	2.42	2.41	2.42	2.40	2.42	2.42			50	2.69
27 H	2.41	2.42	2.41	2.41	2.42	2.41	2.41			
L	2.41	2.41	2.41	2.40	2.39	2.39	2.39		140	2.71
29 H	2.41	2.40		2.40						
L	2.40	2.40		2.40					32	2.70
30 H	2.44	2.42	2.43	2.41	2.41	2.43	2.43			
L	2.40	2.42	2.41	2.41	2.40	2.40	2.40		79	2.70
31 H	2.44	2.45	2.45	2.45		2.43	2.43			
L	2.43	2.43	2.43	2.42		2.42	2.42		102	2.70
Jan. 2	2.45		2.43	2.45			2.44			
L	2.45		2.43	2.42			2.43		73	2.70
5 H	2.49	2.48	2.48	2.49	2.48	2.48	2.48			
L	2.49	2.46	2.46	2.47	2.45	2.45	2.47		125	2.71
5 H	2.55	2.50	2.55	2.57	2.57	2.58	2.56			
L	2.55	2.50	2.50	2.49	2.50	2.49	2.51		97	2.72
6 H	2.63	2.63	2.61	2.65	2.62	2.62	2.62			
L	2.52	2.53	2.52	2.53	2.52	2.50	2.53		363	2.75
7 H	2.66	2.64	2.64	2.65	2.64	2.65	2.64			
L	2.57	2.58	2.58	2.55	2.56	2.55	2.55		165	2.80
8 H	2.52	2.56	2.55	2.54	2.54	2.53	2.55			
L	2.52	2.49	2.48	2.48	2.49	2.49	2.49		335	2.81
9 H	2.53			2.53	2.52	2.52	2.53			
L	2.52			2.53	2.52	2.52	2.53		76	2.79
10 H				2.55			2.54			
L				2.54			2.53		25	2.79
12 H	2.63	2.63	2.63	2.62	2.62	2.63	2.63			
L	2.63	2.63	2.61	2.59	2.60	2.60	2.60		121	2.82
13 H			2.62	2.58	2.58	2.60	2.60			
L			2.60	2.58	2.58	2.60	2.58		36	2.88
14 H	2.60	2.61	2.62	2.61	2.60	2.60	2.60			
L	2.60	2.61	2.61	2.59	2.58	2.58	2.59		84	2.87
15 H	2.62	2.61	2.62	2.61	2.61	2.61	2.61			
L	2.61	2.61	2.60	2.60	2.60	2.60	2.59		71	2.88
16 H	2.69	2.69	2.69	2.69	2.67	2.69	2.68			
L	2.65	2.65	2.65	2.65	2.63	2.64	2.65		235	2.92
17 H	2.78	2.77	2.77	2.77	2.76	2.74	2.76			
L	2.74	2.71	2.71	2.71	2.71	2.72	2.72		236	3.00
19 H	2.76	2.76	2.76	2.75	2.76	2.77	2.75			
L	2.73	2.73	2.73	2.71	2.70	2.70	2.70		205	3.06
20 H	2.77	2.76	2.76	2.76	2.75	2.74	2.75			
L	2.76	2.76	2.74	2.74	2.73	2.73	2.72		96	3.07

JAPAN

(By Courtesy Morimura, Arai & Co., Inc.)

THIS article of a month ago pointed out that raw silk prices in Japan had assumed a more definite upward trend than had been the case since the early October low point was made. Eighty per cent silk on December 19th was 670 yen. The advance has continued at a rapid rate to the extent of 100 yen, or 15%, in the past month.

During this period purchasing of raw silk by manufacturers in New York has naturally been restricted, but spot sales in Japan have increased because exporters have been forced to cover some of their near delivery contracts. At the same time trading on the Yokohama and Kobe exchanges has been in large volume and quotations of futures have risen substantially.

The statistical position of Japan silk has been favorable to an advancing market, although stocks in primary centers are not so much smaller than a year ago as they were last month. Arrivals are running unseasonably heavy at 40 to 50% over a year ago, but re-shipments to the interior for home consumption are so large that stocks are gaining on last season's only slowly.

The outlook is complicated by uncertainty as to the rate of liquidation of the 112,000 bales now withheld from sale and as to how much silk will be brought into Yokohama and Kobe in anticipation of the suspension of reeling in March. Daily price movements:

Japan Market December 20th - January 20th, 1931

Date	Yokohama Bourse			Spot Market		90 Days L/C
	Dec.	Jan.	Sales	80% Silk	Y & K Sales	
Dec. 20	650	669	760	670	510	49-7/8
22	658	678	1310	"	650	"
23	662	675	1400	"	1090	"
24	-	-	-	"	1090	"
25	Holiday	-	-	-	-	-
26	-	684	1290	680	745	49-7/8
27	-	685	495	"	805	"
29	-	-	-	"	405	"
30	-	-	-	"	300	"
31	-	-	-	"	750	"
Change 12/20-31			5245	+10	6345	0
Change for Month of December	+37	+71	41870	+80	18320	0
	Jan.	June				
Jan. 6	676	694	495	680	2400	49-7/8
7	696	716	2995	700	2855	"
8	694	702	1925	"	545	"
9	698	706	1305	"	625	"
10	697	706	835	"	740	"
12	716	724	2095	710	1325	"
13	720	723	3260	720	2130	"
14	721	725	1840	"	1050	"
15	722	725	1225	"	1115	"
16	729	734	1905	730	1210	"
17	749	742	2495	750	1155	"
19	751	739	4535	770	2010	"
20	776	749	2380	770	755	"
Change 1/1-20	+100	+55	27060	+90	17915	0
Change 12/20-1/30			32305	+100	24260	0
Change Month Ago			50005	+70	18265	0

NEW YORK SILK MARKET

RAW SILK

THE steady rise of spot prices on the raw silk exchange served during the past month to push quotations upward with more or less rapidity, and there is a fairly general feeling in the market that rising raw material prices are apt to stimulate buying by both weavers and knitters for coverage purposes. The rally has now definitely established a trend, although there is some doubt as to whether this trend can be maintained. Consumers, nevertheless, are prone to avoid losses by covering against possible further upward movement.

In some quarters, there is a feeling that the recent rayon price reductions may serve to lose for silk some of the ground gained from the rayon industry during the period in which the market was falling, particularly in the hosiery and underwear fields. With rayon yarns now sharply lower, and with raw silk steadily if slowly advancing, they contend, silk has lost its competitive advantage, so far as the price element is concerned.

This contention is met by others with the assertion that silk is still below that point where the price differential between silk and rayon can outweigh the superior quality of silk. Moreover, they look upon the rayon price cut as a matter of only a few months' duration, for keen observers believe that large companies are simply holding to the last list price until such time as producers who have hitherto indulged in alleged sharp practices will be driven from the field. After this has been accomplished, rayon prices are bound to move upward, these observers feel, for the present figures make profit virtually impossible. In the meantime, silk prices, while moving generally upward, are due, it is felt, for momentary setbacks, so that the rise over a long period will not be great. Working on this theory, they believe that it will be some time before the silk trade need lose any great amount of sleep over the possibility of effective competition from rayon.

Importers report that business during the latter half of December and the early part of January was somewhat better than in previous months, especially in Canton and Italian numbers. This spurt was slackened somewhat toward the end of January, but trade was still better than it was in the late fall.

Throwsters see in the advancing raw silk market a renaissance in the throwing trade, although they would feel considerably better if the hosiery market began to show more signs of improvement.

On the whole, there is a greater feeling of cheerfulness in the New York market than has been apparent in many months. This feeling is given impetus by the increasing firmness of the raw market.

QUOTATIONS

JAPAN

Special Grand XX 13/15 White.....	87%	\$3.70
Grand XX 13/15 White.....	85%	3.55
Special Crack XX 13/15 White.....	81%	3.15
Crack XX 13/15 White.....	78%	3.05
XX 13/15 White.....		2.90
Best Extra 13/15 White.....		2.85

CANTON

Canton Fil. New Style Crack 14/16.....	2.05
Canton Fil. New Style XXA 20/22.....	1.85

CHINA

Steam Fil. Grand XX.....	3.80
Steam Fil. Extra "B".....	2.95
Steam Fil. Extra "C".....	2.85
Imp'd Tsatlee Blue Drag. & Fly Horse.....	2.20
Tussah—Best Chops.....	1.20

ITALIAN

Grand Extra Piedmont.....	3.05
Extra Classical.....	1.20

SPUN SILKS

62/1.....	2.35
60/2.....	3.35
50/2.....	3.20
40/2.....	3.00

THROWN SILK

Special Grand XX Organ.....	4.55
Grand XX Organ.....	4.35
Special Crack XX Organ.....	4.10
Crack XX Organ.....	4.00
Crack XX Tram.....	3.65
Extra Tram.....	3.60

CREPE (ON BOBBINS)

Spec. Crack XX 3 & 4 Thd.....	4.15
Crack XX 3Thd.....	4.05
Extra 3Thd.....	4.00
Canton 14/16 3 & 4 Thd.....	3.05
Copping 20c Extra	
For 4 Thd. Crepe deduct 5c	
For 5 Thd. Crepe deduct 10c	

HOSIERY TRAM

Special Grand XX.....	4.30
Special Crack XX.....	3.75
Crack XX.....	3.65
Double Extra.....	3.60

THROWSTER COMMISSION RATES

Japan XX Best Organ.....	\$1.05 to \$1.10 lb.
Japan X, Organ.....	\$1.05 to \$1.10 lb.
Japan Best No. I Tram }.....	.90 to .95 lb.
Japan Best No. IX Tram }	
3 Thread Japan Crepe Bobbin.....	1.15 lb.
4 & 5 Thread Japan Crepe Bobbin.....	1.10 lb.
Addition for Copping.....	.20 lb.
2 Thread Crepe 70/75 turn Bobbin.....	1.75 lb.
Addition for Copping.....	.25 lb.
Grenadine Crepe, 3 Thread—cones.....	2.25 lb.
Grenadine Crepe, 4 Thread—cones.....	2.10 lb.

RAYON YARN MARKET

WITH price reductions now general throughout the industry, and with most consumers realizing that there is little likelihood that prices will recede further, producers feel that there will be little hesitancy in buying during the next few months. It is contended in some quarters that it is impossible for producers to manufacture yarns to sell at a profit under current list prices—in fact, there are those who say that the 75 cent figure for 150 denier 40 filament yarns represents less than the cost of production and distribution.

Stimulated use of rayon is looked for by reason of the better bargaining position of synthetic yarns as against cotton. Rayon underwear knitters see in the new price schedules the possibility that they will be able to regain ground lost during the last year to cotton.

The reduction, too, is seen by many as the means of almost complete elimination of competition from abroad. Even under the old list prices, the present tariff schedule served to make a huge dent in imports for 1930, which shrank to an estimated 5,600,000 pounds as against more than fifteen million pounds in the preceding year. Imports, it is pointed out, had been steadily increasing, at an accelerating rate, since 1924, until the new tariff schedule went into effect. If the tariff can reduce imports in a single year by 66 per cent, it is contended, surely the same tariff will make the new list prices prohibitive to importers. Thus the knell of rayon imports seems to be virtually sounded, at least for the moment.

Elsewhere in this issue, the effect of the price reduction upon undesirable competitive tactics is discussed, as it is seen by both consumers and producers.

Rayon's next big worry, apparently, will be just how the industry can meet the effect of the five year promotional campaign for silk, to be financed from Japan. The expenditure of more than half a million dollars a year is bound to accomplish something more than a flurry in the way of increased use of silk, and those rayon producers who are looking ahead realize that much of this increased use of silk will be at the expense of rayon. There is little likelihood that there will be any concerted move on the part of rayon producers to combat this move, but it is believed to be quite possible that some of the larger synthetic yarn manufacturers will expand their consumer advertising programs. But, with yarns now being produced at a very narrow profit margin, it is apparent that budgets must be carefully plotted in order to get this item in.

As for the immediate outlook, while the price reduction should serve to stimulate buying to some extent, producers believe that a more confident tone in general business will be necessary before there can be any substantial increase in yarn sales.

VISCOSE PROCESS YARNS

Bright or Dull Lustre

Denier	Filament	First	Second
75	18	\$1.35	\$1.25
75	30	1.35	1.25
100	18	1.10	1.00
100	40	1.10	1.00
125	36	1.00	.90
150	40	.75	.72
150	60	.85	.82
170	27	.75	.72
200	30	.75	.72
250	36	.70	.67
300 and coarser		.63	.60
150	40 Oiled Knitting Cones..	.75	—

NITRO-CELLULOSE YARNS

Dull Lustre

Denier	Filament	First	Second	Cones
50	12	\$1.50	\$1.40	\$1.60
75	18	1.35	1.25	1.40
100	20 & 26	1.05	.95	1.10
125	25 & 30	.95	.85	1.00
150	30 & 36	.75	.72	.75
175	30 & 36	.75	.72	.75

Full Lustre

100	26	1.10	1.00	1.15
125	25 & 30	1.00	.90	1.05
150	30 & 36	.80	.75	.83
175	30	.80	.75	.83

CELLULOSE ACETATE YARN

Denier	Filament	
45	13	\$2.25
55	13	2.05
75	20	1.80
100	26	1.65
150	40	1.30

CUPRAMMONIUM YARNS

Denier	Filament	Untwisted Skeins	Untwisted on Spools & Cones	2½ or 5 turns on Skeins, Spools, Cones, Bottle Bobbins
15	24	...	*3.00	...
25	24	...	*2.75	...
30	24	2.40	*2.50	2.60
40	30	2.20	*2.30	2.40
52	30	2.00	2.10	2.20
65	45	1.80	1.90	2.00
80	60	1.60	1.70	1.75
100	75	1.25	1.30	1.35
120	90	1.12	1.17	1.22
150	112	1.00	1.05	1.10
180	135	.87	.92	.97

* 15, 25, 30, 40 no twist, on spools only, not on cones.

All prices—unprepared, prepared or 6% oil.

For 15 turn yarn, 5c per pound added to twisted yarn prices.

RAYON'S YESTERDAY AND TOMORROW

UNDER the title of "The Rayon Industry in Retrospect and Prospect," the Business Research Division of the Tubize Chatillon Corporation in its "Textile Organon," publishes a significant list of the developments in the industry during the year just closed and the "developments which we expect to see in the rayon industry during 1931."

The 1930 developments are listed as follows:

1. A list price cut on May 1 covering principally the fine denier yarns. A list price cut on July 23 covering the complete range of yarn sizes with particular emphasis on the coarse sizes.

2. The spurious rebate in the industry by which yarn prices were really cut five per cent.

3. The policy of billing the higher grades of yarns as lower grade yarns so as to be able to sell them at the lower grade yarn list prices, thus resulting in an effectual price cut.

4. Subsequent general demoralization and sterilization of list prices in general due to the above specific causes, as well as other general causes.

5. Impairment of the activities of the Rayon and Synthetic Yarn Association by the withdrawal of two members in July.

6. The great decline of rayon imports and the slight increase in rayon exports.

7. Lower rates of production in the industry than ever before. This factor, plus price cutting, undoubtedly resulted in lower profits for the year throughout the industry.

8. Proposals for disposing of inferior grade rayons such as the Le Roy plan and the export plan.

9. The initiation by the producers of a 60 day retroactive price guarantee to protect customers against price declines.

10. Formation of the Knitting Arts Corporation by three producers to license knitters to use the Rubenstein patent for the protection of quality merchandise made thereunder.

11. Attempts of practically all yarn producers to work closer with their customers so that the merchandise made should be of better quality.

12. Greater offering of research and service facilities by the producers and greater use thereof by knitters and weavers using rayon yarns. New uses of

rayon as well as a better quality control in existing uses, was effected by the extension of this method.

The outline does not include the December London Conference between representatives of the industry in Europe and America as a development of 1930. The outline says: "We believe that the results of the December London Conference are not yet apparent, nor will they be fully realized for some time to come. By this statement, we specifically mean to discount such latent inferences as may be deduced by the market from any announcements of the week or two following publication of this report (January 8)."

Developments expected for 1931 are listed as follows:

1. A satisfactory disposal of the price problem.

2. Correction of the spurious rebate so as to bring it back to a real, standard rebate system in the market.

3. Steps to standardize the grades of rayon made by all producers.

4. A wise solution for the disposal of inferior yarns.

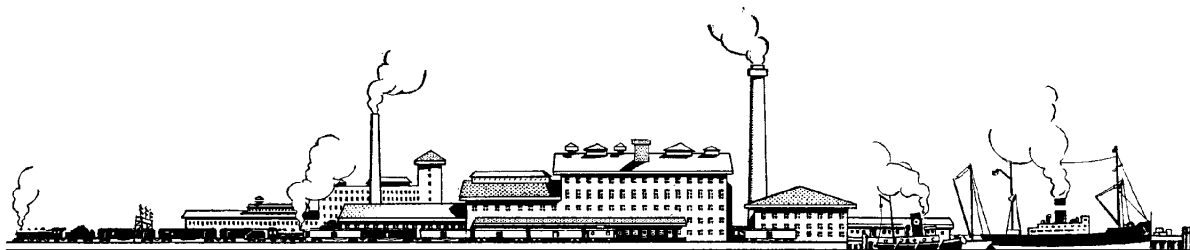
5. We expect to see a substantial decrease in the sales of high lustre yarns and an increase in the sales of extra-dull lustre yarns.

6. We anticipate a decline in the sales of low filament count yarns and a subsequent concentration of filament counts, i.e., underwear manufacturers might concentrate on counts from 30 to 40 filaments, while weavers will probably use more yarn of 60 filament count.

7. We expect that more use will be made of producers' service and laboratory staffs by rayon knitters and weavers. As noted above, this development received impetus last year and the tendency is expected to increase in the future.

The report closes with this conclusion:

"Given a satisfactory solution to the above price problems, we anticipate a favorable year for the rayon industry in 1931. In any case, we are confident that this potential giant of the textile industry will not become a moron; for the interests of its customers, as well as the stockholders who have invested their money in it, will demand that it solve its problems in a man-like, business-like fashion."



OTHER FIRMS FOLLOW VISCOSE CUTS

FOLLOWING the rayon yarn price reduction announced by The Viscose Company, details of which are discussed on Page 67 of this issue, other firms announced price schedules more or less in conformity with the Viscose list.

DU PONT RAYON Co.

The Du Pont Rayon Co. announced a list in which 150 denier 40 filament yarns and 200/35's conform to the Viscose figures at 75 cents for first quality and 72 cents for second quality. Whereas the Viscose list makes a flat rate of 63 cents and 60 cents for all yarns of 300 denier and over, the Du Pont schedule lists several coarse yarns, running as high as 900 denier and 144 filaments at the same figures. The Du Pont firm adds three cents to each quotation for unbleached cones, spools, and tubes. Du Pont also announces several super extra yarns which in general are in conformity with Viscose quotations.

TUBIZE CHATILLON CORP.

Prices announced by the Tubize Chatillon Corporation follow the Viscose lead for its Tubize (bright) and Sanconize (moderately dull) yarns, and adds five cents to the schedule for its Chardonize (extra dull) yarns. Tubize also follows the Viscose lead in extending the price guarantee to 90 days, and in conforming to the established quantity rebate system.

AMERICAN GLANZTOFF CORP.

The schedule announced by the American Glanztoff Corporation is in exact conformity with the Viscose first quality list.

AMERICAN ENKA CORP.

In announcing a list in exact conformity with the Viscose schedule, the American Enka Corporation, through C. M. Carr, vice-president, announced that during the development period of the company, it had published prices slightly under the market, but that now, with the yarn having reached its full state of development, it is possible to offer it at the full list price.

INDUSTRIAL RAYON CORP.

Arthur A. Murphy, vice president of Industrial Rayon Corporation, in charge of sales, announced that the new rayon prices would be followed by his firm.

AMERICAN BEMBERG CORPORATION

In the new list of the American Bemberg Corporation, all yarns of 80 denier and finer remain unchanged from the list of July 30, 1930. New prices quoted are: 100/75s, \$1.35; 120/90s, \$1.22; 150/112s, \$1.10; and 180/135s, 97 cents. These figures are for yarn prepared or unprepared, two and a half to five per cent twisted, untwisted, on spools, cones, bottle bobbins or in twisted skeins. For no twist, on skeins, 10 cents is deducted.

DELAWARE RAYON Co.

Through Leon H. Ryan, general manager, the Delaware Rayon Co. announced it was meeting the new prices and the 90 day guarantee. Mr. Ryan said the firm is not publishing any list at this time, but is submitting quotations on request.

RAYON NEWS HERE AND ABROAD

WHILE American rayon producers were preparing the announcement of a price cut that, although expected, startled the trade by its size, British firms were announcing increases. British Celanese, Ltd., announced a raise in prices about the first of the month, to be followed within a few days by Courtaulds, Ltd., which although leaving some of the acetate numbers at prior quotations, boosted the prices of 140 denier warp and weft yarns, by six pence per pound.

Distribution of Snia Viscosa rayon products in the United States has been taken over by the American Scotti Corp., according to announcement by Walter Schmaedig, vice-president and treasurer of Commercial Fibre Co. of America, Inc. This announcement followed closely one from Manchester, Eng., to the effect that Commercial Fibers of England, Ltd., representatives in Great Britain of Snia Viscosa, had decided to close their Manchester office, because of shrinkage in business.

The plant at Rocky Hill, Conn., of the Belamose Corp. was closed at the opening of the year, for inventory. Because the plant had been running day and night shifts in many departments and there have been only two shutdowns of unusually brief duration during 1930, the inventory period this year was longer than usual, according to G. T. Loveridge, plant manager.

British Enka Artificial Silk Co. Ltd., has placed a new yarn, known as Encadena, on the market, described as "the viscose yarn with the acetate feel." The new yarn is produced in 60, 75 and 100 deniers, on a five denier per filament basis.

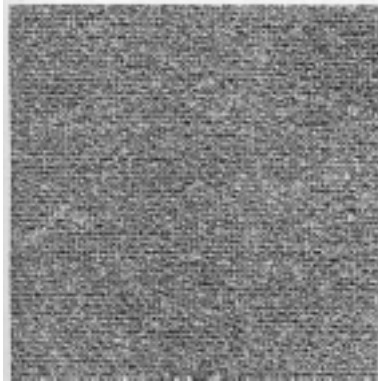
The January issue of the "Premier Rayon Review," house organ of the Industrial Rayon Corporation, contained articles by several outstanding writers. Among these was a particularly interesting and keen analysis of the general business situation by Merryle Stanley Rukeyser, one of the nation's most widely known financial writers. The "Premier Rayon Review" holds a unique place among house organs, for without even the minutest effort of boosting the company that sponsors it, it offers material which would be a credit to a trade journal or even an independent business publication.

American Bemberg Corporation has transferred activities of the Providence office to New York headquarters of the corporation as of January 15th.

NEW ACELE TEXTURES

SEVERAL new textures of du Pont Acele have been brought out in recent weeks and are meeting with no little success.

Among the new numbers in Frostrae, a mixture of Acele and cotton which results in a rough texture resembling eponge.



It is a washable fabric, with the appearance of wool. As will be seen by the accompanying illustration, the name is derived from the fact that use of the cotton serves to give the fabric the appearance of frost against a darker

ground. The fabric has proven popular.

Other new textures include Peau Ducele, made entirely of Acele yarn, which, in keeping with the mode for stiff materials, is a heavy taffeta; Nacele, a printed square sheer material, equally adaptable for dress and glass curtains; and a runproof tricot designed for bathing suits, possessing the advantages of not clinging unduly to the body when wet and of tailoring well, making it adaptable for pleated models.

THE OUTLOOK IN SYNTHETIC TEXTILES

BY S. R. FULLER, JR.

Chairman of the Board, American Bemberg Corporation

THE current business depression generally should not be regarded with dismay by individual mills, manufacturers and retailers. Not in spite of, but because of existing conditions there is a spectacular opportunity for alert producers and distributors to make 1931 a year of achievement and profit.

Markets may have contracted somewhat; they have not disappeared. Buying power may have lessened to a degree; it has not vanished. Dollars, hundreds of millions of dollars will be spent by the consuming public in 1931 whether or not there is a sudden return to an era of inflated values—of indiscriminate luxury buying. Consumers will buy nevertheless. In buying, however, they will examine values more carefully and more critically than in the past few years. They will still insist on style, but quality and value will have a new significance. The acid test for mills, manufacturers and retailers will lie in their ability to supply better quality and value at old prices; the same quality and value at new lower price levels. For example, the manufacturer who finds the way to supply a garment

to retail at \$1.50, for all purposes as beautiful and serviceable as previous \$1.95 standards, will not be crying about business conditions.

Recognizing this opportunity, the 1931 policy of the American Bemberg Corporation will be to establish closer cooperation with mills, manufacturers and retailers than ever before, to the end that extraordinary values may be developed. The American Bemberg Corporation feels keenly its responsibility to its customers. It pledges its aid to the task of creating with those customers new values necessary to enable individual producers and distributors to win out in the race for the consumer's 1931 dollar.

SEYER SILK DYEING & FINISHING COMPANY

THE factory on Belmont Avenue, Haledon, New Jersey, known as the Haledon Plant of the Associated Dyeing & Printing Co., Inc., has been purchased by Joseph Seyer, Sr. and Robert W. Bates, who will start operating on or before March 14th, 1931.

Mr. Seyer needs no introduction to the trade, as a high class Dyer & Finisher of all piece goods. He was in the employ of the Cole Brothers, who owned the Standard Silk Dyeing Company, as general manager, for nearly a quarter of a century. His reputation as a dyer of washable silks is known throughout the silk trade.

Mr. Bates has for many years been connected with several industries in Paterson, and has many years experience as an industrial executive.

Mr. Bates will act as president and treasurer. Mr. Seyer will be vice-president and manager.

They will specialize in pure dye silks and rayons. Their specialty will be washable silks, on which Mr. Seyer has built his reputation.

THE ENGINEERING INDEX SERVICE

A SERVICE of considerable value to any whose business it is to keep abreast of technical developments in one or more industries is produced by a division of the Engineering Societies Library, known as the Engineering Index Service.

Without qualification, those in charge of the service claim it is the most comprehensive and complete annotated index of current engineering literature in the world. The service furnishes, in 223 divisions, index cards showing what is currently published, anywhere, concerning the rapid and extensive developments in engineering.

A staff of engineers and linguists regularly reviews more than 1800 periodicals, in addition to reports of societies and of surveys.

The Index Service has offices in the Engineering Societies Building, 29 West 39th Street, New York.

PRINTING AND DYEING IN STYLE DRAMA

AN element with growing importance in the style picture is the processing of the fabrics used in all types of costumes. With wool and linen invading the territory of the formal gown, and transparent velvets being made into sports things, there is need for a parallel "range" in the dyeing and printing of fabrics. In other words, knowing to what use a fabric is likely to be put means knowing pretty well how to proceed with it as concerns dyeing, printing and finishing.

Harold Cruger, who co-ordinates the style which goes into the dyeing and finishing done by the National Silk Dyeing Company, said editorially in the program of the Spring G.R.A. style show:

"... all the steps in achieving style are being watched closely, checked, and studied for possibilities of improvement. One of these steps is the processing of fabrics. And current textile history is busy establishing this fact: that only the processing company which will acknowledge this power of style, and make the effort to track down information about it at the sources, can keep in step with a kaleidoscopic market." . . . It is to this end that certain progressive dyeing, printing and finishing companies have established special departments to gather, edit and apply this style information for their clientele."

That this co-operative spirit is actively at work is attested to by the number of instances where the processing company is mentioned in connection with the style exhibits at this G.R.A. Style Show. Belding Heminway, Celanese, L. & E. Stirn, Corticelli and Bernberg made quite a point of the fact that the material for their costumes was dyed, printed and finished by The National Silk Dyeing Company . . . and even, in several instances, designed by National.

CALEDONIA ADDS NEW MACHINES

THE Caledonia Print Works, Hoboken, successors to the American Novelty Printing and Embossing works, established 1871, are showing their confidence in the silk industry by installing a quantity of new machinery of the latest design, to enable them to handle increased business. Important changes are also being made in the plant, which will enable the firm to put out work of the highest order on a fast schedule. The plant is under the supervision of Douglas Klein, and the management remains under John F. McCowan. The firm is represented in New York by Michael A. Clement.

THE ASAHI YEAR BOOK

THIS Journal is in receipt of the 1931 Year Book issued by Asahi Corp., agents for Asahi Silk Co. Ltd., manufacturers and importers of raw silk.

This year the firm has issued an unusually interesting and beautiful volume. The cover of limp leather is embossed in gold with a butterfly motif, and in the book are colored Japanese prints, also photographs depicting the production of raw silk in Japan. There is a page for every business day in the year for raw silk quotations. Raw silk statistics are included.

SILK DYERS ANNUAL DINNER

THERE was a large attendance at the eighteenth annual dinner of the Silk Dyers Association of America, held at the Alexander Hamilton Hotel, Paterson, on January 20. P. J. Wood, vice president of the Oriental Silk Printing Co., was toastmaster.

The speaker of the evening was Gordon James representing the National Association of Manufacturers. He addressed the gathering on the subject of "Profits versus Price Cutting," dividing his address into two parts under "The Problem of Depressed Price Levels," and "Can A Manufacturer Get a Fair Price for his Products?"

The attendance included the following members of the industry: Tunis Breeman, A. L. Wachter, and R. M. Drace, Keystone Piece Dye Works; Henry Ruegg, Jr., and Gus H. Uhlig, Standard Silk Dyeing Company; Joseph E. Mirandon, secretary; Walter R. Hudson, counsel; Edward F. L. Lotte, National Silk Dyeing Company; John J. Fitzgerald, secretary Chamber of Commerce; Baptiste J. Lanza, Lanza Silk Dyeing Company; R. De V. Hope, V. C. McCollum, William F. Page, Edward Bohl, Jr., W. H. Kearns, E. R. Geering, Edward A. Kearns, F. Maas and J. W. Kearns, National Silk Dyeing Company; Clark A. Heyden, Union Piece Dye Works; Victor Brinkman, United Piece Dye Works; William B. Clough, Oriental Silk Printing Company; Robert H. Gaede, Gaede Silk Dyeing Company; M. Emile Roetheli, Weidmann Dyeing Company; R. C. Davenport and H. Terraneo, Paterson Silk Dyeing Company.

THE RIBBON OUTLOOK

IN LINE with expectations, leading ribbon manufacturers have booked some little business as a result of the increasing fashion significance of sashes and ribbon trimming effects in the newer dress modes. Thus far, this has been chiefly in dresses for the so-called high-style trade, but manufacturers are confident that the mode will gain greater acceptance in all price groups before the close of the spring season.

Sizeable movement in novelty ribbons is reported, and some manufacturers are cooperating with distributors in arranging consumer promotion in this direction.

The return to favor of plaids and stripes, which had begun in the late fall, has gained impetus.

OBITUARY

JAMES J. ANDERSON

JAMES J. ANDERSON, president of Anderson Bros. Silk Co., Paterson, died on January 19, following a long illness, at the age of seventy.

Born in France, he came to this country as a young man and with his father and three brothers, formed the silk weaving firm of John Anderson & Sons in 1879. The firm made a specialty of silk mufflers and handkerchiefs and won many exposition prizes for their products in this country and abroad.

The deceased is survived by his widow, three daughters and four sons. One of them, Frederick Anderson, is with the Argyle Silk Co.; another, John E. Anderson is associated with the Anderson Bros. Silk Co.

HENRY KNIGHT

HENRY KNIGHT, a former silk manufacturer in New York and New Jersey, died at his home at Paget East, Bermuda, recently. He was eighty-three years of age and had retired from business ten years ago to live in Bermuda. His early life was spent in Dudley, Mass.

PERSONALS

BONNER—"Irresistibly a silk year," Paul Hyde Bonner, vice president of the Stehli Silks Corp. called the coming season as he left for Europe on the S. S. Augustus, January 14, to attend the continental openings.

"For five or six years, we have heard rumors that this or that other fabric was going to displace silk from the throne of fashion," he said, "but it has never come to pass. This year does not allow even a rumor of that sort. Because of the extraordinarily low price of pure silk, the coming season will permit designs and yardage which will render competition by any other fabric ridiculous. Production of raw silk in the Orient supports this prophecy. Silk is on the eve of its greatest season in many years."

DURAN—Leo Duran, sales manager of the Dai-ichi Raw Silk Corp. of America, has recently returned to New York from Japan where he remained ten months studying raw silk problems.

ISHIDA—R. Ishida, managing agent of Mitsui & Co. Ltd., has been elected a member of the National Raw Silk Exchange.

GERLI—Emanuel Gerli, president of E. Gerli & Co., was made a Knight Grand Cross of the Equestrian Order of the Holy Sepulchre by Bishop John J. Dunn, at St. Patrick's Cathedral on January 14.

MCGEOUGH—William J. McGeough is again associated with the U. S. Bobbin & Shuttle Company following his recent appointment to the sales depart-

ment of the Company. Mr. McGeough, with the company for many years in the past, has a thorough knowledge of bobbin, spool and shuttle requirements gained from long experience in both the manufacture and distribution of U. S. products. Mr. McGeough will serve the textile interests in New Bedford and surrounding territory.

DYERS ELECT NEW OFFICERS

THE following officers were elected at the annual meeting of the Silk Dyers Association of America, held at the Alexander Hamilton Hotel, Paterson; Edward Bodmer, of the Paterson Silk Dyeing Co. was elected president to succeed P. J. Wood, vice president of the Oriental Silk Printing Co.; M. Emile Rotheli, of the Weidmann plant of United Piece Dye Works, was elected vice president, and Eli Miranda of the Lanza Silk Dyeing Co., was reelected secretary and treasurer.

At the semi-annual meeting of the Silk Dyers and Printers Association, held at the Alexander Hamilton Hotel, Paterson, Weber de Vore, of the United Piece Dye Works, Lodi, N. J., was reelected president of the credit group, and Alexander Patterson was reelected secretary.

DUPONT'S NEW FAST BLUE

A DIRECT dyestuff yielding brilliant reddish blue shades of excellent light fastness, has just been announced as Pontamine Fast Blue RR, by the Dyestuffs department of E. I. du Pont de Nemours & Company. It is stated that this color penetrates very well, is exceedingly soluble and sufficiently level dyeing for use on the padder or jig, as well as on all types of machines used for dyeing cotton yarn and raw-stock. Extreme fastness to light and brilliancy of shade are said to make this color exceptionally valuable for application on draperies, curtains, upholstery, and similar materials.

NEWS NOTES

THE cover illustration for this issue shows tanks used for ageing or ripening viscose solution to bring it to the proper consistency for spinning it into rayon yarns. In the foreground is one of a group of filter presses through which the solution passes in order to purify it. The photograph from which the JOURNAL artist sketched, was loaned by Du Pont Rayon Company.

VICTORY Dyeing & Finishing Co., of Paterson, has taken new and larger offices on the fourth floor of 183 Madison Avenue, New York, with better facilities for handling increasing business. The New York representatives are Messrs. Wolf, Cohn and Mandel.

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BEMBERG CHANGES

A NNOUNCEMENT has been made by S. R. Fuller, Jr., chairman of the Board of Directors, American Bemberg Corp., that B. C. Dunlop, vice president American Bemberg Corp., will continue in charge of all sales and promotional activities of the company. Dr. W. Schlie of J. P. Bemberg A. G., Barmen, will temporarily assist Mr. Dunlop in sales and technical matters. E. C. Morse, assistant to the vice-president, will continue in charge of the cooperative merchandising department, and will also have charge of the office of the company's sales department in New York.

PATENTS NEW RAYON PROCESS

A PATENT has been granted to A. W. Buhlmann, textile engineer, for a new process which is said to improve the present methods of treatment of textiles of cellulose fiber. It is claimed that the new process removes undesirable characteristics of synthetic textiles, and results in a fabric more nearly resembling natural silk. The process operates upon the finished fabric, rather than upon the fiber.

SPECIAL NOTICES

Advertisements under this heading, Five Cents a word. Minimum charge One Dollar. In every case regarded in strict confidence

WANTED—AN ASSISTANT SUPERINTENDENT for actual supervision of production of quality merchandise. Applicants must have expert and actual knowledge and experience in loom-fixing. This is an exceptional opportunity for the right man. Write, giving full and detailed particulars. All correspondence will be kept strictly confidential. Address "Progress," care American Silk Journal.

POSITION WANTED—SUPERINTENDENT or foreman in broad silk, yarn dyed or raw goods, by first class, practical man, in manufacturing saleable merchandise. Thorough manager of help, and can turn out production, will go anywhere. Address "Location," care American Silk Journal.

FOREMAN of weaving or loom fixing, open for position; have 20 years of weave room experience; one who is familiar with dobby designing. Will consider going anywhere. Address "Weaving," care American Silk Journal.

SUPERINTENDENT—Possessing experience as superintendent 16 years; as foreman and fixer 10 years, also throwing. Efficient in fine details of broad silks or rayons manufacture and help management, desires position. Address "Moderate," care American Silk Journal.

STYLIST AND COLORIST—Technical expert for dress silks, plain and fancy prints, piece cross-dyes, velvets, plushes, brocades, tie silks, etc. American citizen having connections with French novelty centers, would like to take charge of the styling and technical work for reliable and progressive New York firm. Address "Stylist," care American Silk Journal.

HIGH GRADE EXECUTIVES, overseers, designers, examiners and others furnished for silk mills, 34th year of confidential employment service for employers seeking men and men seeking positions. Charles P. Raymond Service, 294 Washington Street, Boston, Mass.

POSITION WANTED—EXPERIENCED SUPERINTENDENT, practical in every department of manufacture, including throwing, desires to connect with reliable manufacturer. Capable of taking entire charge of mill producing either plain or fancy broad silks, assuring quality and production, location immaterial. Address "SXL," care American Silk Journal.

SUPERINTENDENT OR ASSISTANT SUPERINTENDENT position wanted, by a young man in silk throwing plant. At present employed. Experience in winding, twisting, coning, tubing, copping, warping and sizing; experience with fancy and novelty twists, crepe, schiffli lace, voile and hosiery; best of references. Address "Throwster," care American Silk Journal.

TEXTILE SCHOOL GRADUATE open for position as assistant superintendent or superintendent. Twenty years experience in throwing and thread manufacturing. Expert on cost finding methods that get results. Best of references. Address "Thread Mfg.," care American Silk Journal.

EXCEPTIONAL OPPORTUNITY

Building in Pennsylvania, space for 80 looms, with auxiliary machinery. Cheapest labor in State—all experienced. Can be bought cheap or will rent. Address "Exceptional Opportunity" care American Silk Journal.