

NE STRAUS GIVEN TIONAL ACCLAIM

Continued from Page 1

Chemurgic Council at its annual meeting in Chicago, March 29th. I had the privilege of addressing the Third Dearborn Conference of the Farm Chemurgic Council in Pigeon, Michigan, on May 25th. I made the statement that the present work on flax fibre in this country gave promise of the production, in the near future, of at least one large American plant for the manufacture of manufacturing cigarette paper from flax fibre—an American raw material.

At that time, this promise has been fulfilled. We have incorporated the Pigeon Paper Corporation in Pigeon, Michigan, where there is now operating a modern paper mill, manufacturing on four large paper machines, 24 hours each day, cigarette paper for the American cigarette producer. This paper is made from green-grown flax, and a real Farm Chemurgic project has resulted—an example of the chemurgic movement of bringing industry and agriculture together through the medium of forestry.

The advent of Ecusta, practically all cigarette paper consumed in the United States was imported from France, where there are in operation a number of mills which produce on the production of cigarette paper for this country. These mills employ linen rags as their raw material, most of which are imported from Russia, Poland and Balkan countries, which are designated as unstable countries and therefore unreliable as a source of supply.

Shortly after World War No. 1, I became interested in the French cigarette paper industry, one of my discoveries was that France was entirely dependent on foreign countries for its raw material, and that there was no statistical information available to the quantities of linen rags used in those countries where they were gathered. My friends told me I did not worry about this, because I always obtained all raw materials needed without any concern about their source.

Customers depended on us to supply with an uninterrupted flow of cigarette paper, and I felt insecure being able to have assurance at all times—peace or war—the quantity of linen rags could be obtained for paper manufacture. In my own mind, there was never any reason why a good quality cigarette paper could not be produced in America. We had all the requirements, as water, machinery, engineering, etc., but, until we started development, we did not have the flax in this country the necessary raw material.

Of course, we have been positioned to construct a cigarette paper mill in this country without having developed a source of raw material. However, the manufactured product would not have been a 100 per cent American product, since it would have had to depend on the unstable European countries for its source of supply, and, in this manner, we would have offered no greater advantage to the cigarette manufacturer than the cigarette paper mills in France.

This reasoning is amply borne out at the present time. We understand that, not only is it extremely difficult to obtain supplies of papermaking raw materials from abroad, but it is extremely expensive, and we have been told that the prices of linen rags, etc., have risen in many cases more than 100 per cent above pre-war costs. Not only would this happening be a cause of serious embarrassment to the cigarette paper manufacturer, but it would be disastrous to the manufacturer of cigarettes, who would be unable to secure additional quantities of cigarette paper.

Therefore, I was convinced of the necessity of establishing for ourselves, in this country, our own source of raw materials, which would not only insure our self preservation, but would also afford our customers the maximum security.

My many visits to Europe (I have crossed the ocean in excess of 100 times) led me to the belief that another World War was inevitable. Unfortunately, my prediction came true. Therefore, in 1933, I started to seriously study every angle of cigarette paper manufacturing in the United States.

Linen rags originate from flax. Flax has been grown in this country since early Colonial days, but has, as a fibre, practically disappeared. We started to look thoroughly into the agricultural background of flax in various parts of our country, and found that flax straw could be added as a new cash crop for the farmers—a crop which was so urgently needed.

We started with several ideas in mind, which consisted of producing flax fibre for the textile industry, as well as fibre for the paper industry. In other words, we were attempting what we called a "Companion Development." We were not in the textile business but we were paper manufacturers. As we could obtain very little encouragement on the part of the textile industry to help us shoulder the effort, and provide the capital and enthusiasm necessary to develop the possibility of flax in this country, we, therefore, decided to go this road alone; and we pursued it successfully until today we have made available to ourselves various sources, in different parts of the country, where we obtain flax for paper purposes in abundant quantities.

- Our work consisted of:
1. Agriculture.
 2. Machinery for making the flax straw adaptable for paper purposes.
 3. Chemical processes for making out of the virgin flax fibre an acceptable sheet of cigarette paper.

A decortivating plant—for defiberizing flax straw—was established in the Imperial Valley in California, where straw was delivered by the infant but growing California flax industry. Today that industry is rapidly becoming a large factor in California agriculture, and our fibre mill is obtaining sufficient quantities of straw to insure it year-around production. This plant is now producing 2500 tons of fibre a year, and we are considering increasing the capacity.

Even though California is expanding its flax acreage—the 1940 crop amounting to 160,000 acres—Minnesota is still the flax center of the United States. 1,200,000 acres were planted to flax in 1939, and the returns from this year's venture were so promising that advance indications lead us to believe that 1940 acreage will even surpass this figure. Through our connections in Minnesota, we are annually obtaining 7,000 tons of paper stock fibre, which, together with the 2500 tons of California fibre, will just about take care of

the requirements of the paper mill.

As I have just mentioned, we will need a minimum of 10,000 tons of paper stock fibre per year. We estimate that between 75,000 and 100,000 acres of flax are necessary to give us this tonnage. Considering this acreage in relation to the entire flax acreage of the United States, leads us to believe that, although it is not a large percentage of the whole, it is still a fairly good proportion, and at the very least, is a step in the right direction toward making a market available to the flax grower where he may profitably dispose of his flax straw.

After the question of raw material had been successfully finished, we started the study of finding a location for our plant. We searched high and low, in many parts of the country, until we found an ideal location, embodying all the requirements for cigarette paper manufacture. This was at Pisgah Forest, North Carolina, which is right outside of the entrance to the great Pisgah National Forest. Pisgah Forest is about thirty miles from Asheville, North Carolina.

Here we found the Davidson River—a mountain stream of pure, soft water—which gives us an over-abundant supply of the type water which is a prerequisite for fine paper manufacture. We also found a building site where we are surrounded by beautiful mountain scenery, in a secluded spot where we are not interfered with by other industries which might contaminate our water and air. We also were fortunate in locating in a mountain community where a new industry was very much needed, and an ample supply of intelligent American help was available.

By a stroke of good fortune, we succeeded in turning out our first acceptable sheet of paper on September 3rd, 1939—the very day World War No. 2 was declared. This has naturally been a great consolation to all our friends and customers, who have encouraged us in every respect in establishing this new industry in the United States.

The American cigarette industry continues to show a very steady increase in volume. Cigarette paper is also a very stable article—not subject to style or fashion—its consumption being steady in bad times as well as good. Consequently, the demand for cigarette paper has become greater and greater. We, therefore, expect that the consumption of flax fibre by the cigarette paper industry will show a marked increase year by year, in addition to which I do not hesitate a bit in stating that I feel there are possibilities for this paper stock fibre in other lines of paper manufacture; we can readily see where the use of this type of raw material has great possibilities, and that the amount consumed by the paper industry as a whole will increase gradually throughout the years.

One of the problems, the solution of which will probably have great influence on the use of this fibre in other fields of the paper industry, is the development of a market for shive. Shive is the woody part of the flax straw which remains after the fibre has been extracted. Although many possible uses have been suggested to us as an outlet for this material, we have had very little success with it, even though the shive appears to have many properties which tend to make it attractive to many industrial concerns as a raw material. To illustrate the importance of this problem, I might mention that we have an accumulation every year of not less

than 40,000 tons of this material. In our own Research Department, and with the help of others, we continue to strive to find a way to dispose of this material which is going to waste at the present time.

The reception which our paper has found among the leading cigarette manufacturers in this country has already resulted in an expansion of our mill, which will increase its capacity by about 50 per cent over the output originally planned. At the present time, we are employing approximately 900 people, most of whom are natives of the county in which we are operating. We have trained these workers, under expert instructors whom we had available, in the art of making paper; we have found labor conditions very satisfactory here; and we have been told that our advent into the district has been extremely beneficial.

If I may call cigarette paper a perfect illustration of Farm Chemurgy possibilities, I want to say that many other such opportunities exist whereby agriculture and industry could join in the establishment of new industrial developments and could thus help prosperity in this country.

In contemplating a development of this character, you must not permit expense or time to frighten or deter you. With intensive preparation, and with determination, success is certain to come sooner or later. It requires the employment of an adequate staff of experts—agricultural, chemical and mechanical. The dividends to be earned, directly or indirectly, by the successful completion of such an enterprise cannot be expressed in figures.

In my frequent contact with large industries in this country, I have very often been startled about the little understanding of Farm Chemurgy, the need for it, and the possibilities it offers. Honestly and truly, we are very proud of what we have accomplished, and if the work which we have done could inspire others to do the same, we would be very grateful, and if, in our small way, we could be of any assistance or encouragement, we would be very happy to help.

Smoking Regulation

Continued from Page 1

4. THE TURBINE ROOM.
5. THE BOILER HOUSE.
6. THE PILOT PLANT OFFICE.
7. THE FILTER PLANT.
8. THE PULP MILL OFFICE
9. WASHROOMS, TOILETS, AND LOCKER ROOMS.
10. THE MILL YARD, EXCEPT WITHIN 200 FEET OF THE FIBRE WAREHOUSES AND WITHIN 200 FEET OF THE PROPANE TANK, AND PAINT HOUSE.

In those places where smoking is allowed, the proper receptacles are to be provided for the disposal of matches and butts. Instructions should be given that these receptacles are to be used and it will not be tolerated if matches and butts are thrown on the floor or other places. If it is found that employees do not strictly observe this rule, the permission which has been granted to smoke in the locations designated will be cancelled and revoked, not because of the fire hazard involved, but due to cleanliness.

All employees must be informed that the CHEWING OF TOBACCO AND SPITTING throughout the plant will not be tolerated.

All employees must be informed that the drinking of ALCOHOLIC BEVERAGES including BEER on the premises, is strictly prohibited.

Miss Justine Williams, women's Recreation Director, will act in the capacity of librarian and will be on hand from 8:45 A. M., until 5:00 P. M., to issue books. The books will be loaned for a period of one week. However, if the reader requires more time, books may be renewed for an additional week. We have in our files a request list so in the event that you do not find your reading interests on our shelves we should appreciate your suggestions for future book orders. Among the many famous authors

	no dep.	1 dep.	2 dep.		no dep.	1 dep.	2 dep.
\$ 750	\$ 0.	\$ 0.	\$ 0.	\$ 0.	\$1000	\$ 0.	\$ 0.
800	3.	0.	0.	0.	1100	3.	0.
900	11.	0.	0.	0.	1200	6.	0.
1000	21.	0.	0.	0.	1300	9.	0.
1100	31.	0.	0.	0.	1400	12.	0.
1200	40.	0.	0.	0.	1500	15.	0.
1300	50.	0.	0.	0.	1600	18.	0.
1400	59.	0.	0.	0.	1700	21.	0.
1500	69.	0.	0.	0.	1800	24.	0.
1600	79.	6.	0.	0.	2000	30.	0.
2000	117.	42.	6.	0.	2500	45.	15.
2500	165.	90.	50.	12.	3000	60.	30.
3000	221.	138.	98.	58.	3500	75.	45.
3500	284.	186.	146.	106.	4000	90.	60.

Mr. A. J. Loeb, better known to Ecustans as "Art" Loeb, recently returned to Brevard. Mr. Loeb is Vice Pres. of the California Central Fibre Corporation and has been located at El Centro, Calif., for the past year. On Nov. 12, Mr. Loeb was married to the former Miss Kathleen Vachreau of Wausau, Wis. The ceremony took place in Chicago and their honeymoon was spent in Florida. We extend our very best wishes to the bride and groom and hope that their stay here will be an extended one.