THE CH. E's GO INSPECTING

By W. D. SHEETS, CHE. E. 4

The old saying that realization is ninety-five per cent anticipation failed to hold true in the case of this trip as it was so well managed and enjoyed by everyone. In fact that saying may be turned about to read the reverse.

We got off to a flying start on Monday, April 28, making our first stop at Dayton at the Duriron Co. There we saw Duriron in its various stages and had the privilege of seeing a charge poured from an electric furnace. We also visited the Frigidaire Co., viewing the manner in which the sulphur dioxide is handled and the electroplating methods of the refrigerating units.

Our next stop was the National Cash Register Co., to see in operation their conveyer system, a chain-type conveyer which moves continuously and is about 6000 feet long. They have also solved an interesting economic problem by manufacturing their own inks and ribbons. In this department two men turn out all the products and last year they made a saving of $50,000. They speak of this as a profit since it would have cost that much more to buy the same material from an outside firm.

Traveling towards Cincinnati we visited The West Carrollton Parchment Co., and the Cincinnati Chemical Co. This last plant was our first touch of the dye industry and everyone managed to get his shoe soles covered with powdered dye. Unfortunately it rained before we arrived at the hotel and we left a beautiful mottled purple effect on the tiled floor of the foyer.

In and about Cincinnati the next day we visited the American Diamalt Co., which uses barley as raw material and in answer to a question of one of the group the superintendent stated that the product was advertised as being "very good for cooking purposes"; the American Oak Leather Co., where we saw the processes of coloring the leather from which the shoes of our co-eds are made; the Drackett Chemical Co., Mr. Drackett, the president, being a graduate of Ohio State; the Procter & Gamble Co., visiting their soap department and also getting a few glimpses of the manufacture of Crisco lard; the Emery Candle Co., which was not a perfume factory but did make nice-looking candles ,glycerine, stearic acid and tar from the inedible greases and scraps of the meat industry; the Flintkote Co., who are the manufacturers of shingles and roofing products and turn out either asbestos or plain products. And last but not least we saw the White Tar Products Co., where we became familiar with the manufacturing of mothballs.

Our day in Cincinnati was completed and later we boarded our sleepers for Chicago and its outlying districts. All went well until the next morning when "Charlie" Duncombe declared war on the various members of the group who evidently could not sleep on a Pullman and had to rise with much racket at 4 a. m. Happily for them their identity could not be discovered and we arrived at Kensington, an outlying section of Chicago.

We procured our breakfast at Parise's Café It had formerly been a saloon from the appearance of the outside but the name is all that remains and we found ourselves in a clever little place that would make "Tim" blush.

From breakfast we went through the Sherwin-Williams plant and there we saw the Dutch and Carter processes of white lead manufacture.

Our next two plants were both lead refining plants, the International Lead Refining Co., using the Parke's process, and the U. S. S. Lead Refining Co., using the electrolytic process. At both places we saw silver bullion which is recovered from the impure lead and at the last named we were treated to the sight of a bar of gold weighing 640 ounces and worth a little over $13,000. The superintendent of the plant told us that approximately 4000 ounces of silver and 25 ounces of gold are recovered per ton of lead.

We next visited the Grasseli Chemical Co., and continuing we stopped at the Portland Cement Co., or the Universal Atlas Cement Co., as it is now named having undergone a merger recently. This plant is of enormous size and is capable of turning out large quantities of finished cement. An interesting fact in this plant is the fact that the sacks are filled after they are tied shut.

Our next stop was at the Standard Oil Company's Refinery. Here we had a game originated by our guide and it was nothing more than a footrace to see who could finish first. The guide was the best bet and won by several noses. During the race the guide happened to see a storm coming and stopped in a great wide open space to let it pass, taking advantage of the pause to answer questions. Dr. Withrow unlike Ashur Url was able to bring him out of his coma and we made a mad dash for cover.

We then made our weary way to the Hotel La Salle and after registering were let loose for the evening. It is whispered that a number of the men visited theaters that night and confirmatory evidence was secured the next day in the form of programs. From these programs it seems you may smoke in the Chicago theaters if you so desire.

Minnear had great difficulty the next morning in wresting himself from the arms of Morpheus but arrived on deck at the last minute and we set out for a day in Chicago.

Our first visit was at the Booth Fisheries and here we suffered our first delay. A few minutes after we got started however we were glad as it turned out to be a cold storage plant at 4 degrees below zero and only one person — a girl — had remembered to wear a fur coat.

The girls have not been mentioned so far and a word must be spoken to introduce them. There were two of them, Miss Mary Louise Bucher and Miss Yun Hao Feng, both graduate students in the department of Chemical Engineering. Both girls were very game and almost outwalked some of our best bets.

After visiting the Booth Fisheries we went to

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Swift & Co., where we saw the slaughtering of hogs, sheep, and cattle, on a wholesale basis. It did not affect many of us but Professor Malvea has renounced any further desire to partake of meat at his meals. We also noted that Henry Ford has so far failed to avail himself of the grunts and squeals going to waste there. We struck our worst rock when we entered the glue factory. None of us could eat so well after that for the rest of the day. Our guide told us that glue was not made from the bones and hoofs as commonly thought but was made from meat scraps and hide trimmings. He failed to say what was made of the liquid that was obtained by boiling the bones and hoofs before they were ground up for fertilizers but we had our suspicions.

We next visited Armour & Co., and Sears, Roebuck & Co., before going to the Corn Products Refining Co., where some of the well-known brands of starch and corn sugar are made. This plant was very well planned and obtained a high efficiency in handling materials at minimum costs. We followed the process from yellow field corn clear through the plant to Argo starch, corn sugar, jelly, and Mazola oil, their main products. Up to this time we thought we had climbed plenty of stairs but we soon changed our minds. Our guide, one of the chemists, was an ex-football man from Iowa and the first building we entered looked about the height of the Woolworth Building. He took us up on the run for what seemed to be about the nine stories. We couldn't count after the first two floors and no one had breath enough to ask questions for some time.

Leaving Chicago that night via sleepers we went to Detroit and this time everyone including the porter overslept about a half an hour. None mourned the fact though he had to rush.

The first plant in Detroit was that well-known can factory, Ford Motor Co. Its size is really impressive and the numerous things that are done there makes one realize how Henry Ford attained his vast holdings. One is struck by the cleanliness of the whole. Even in the boiler room the various parts of the front of the boilers were dusted and polished. Everything we saw was interesting from the plate glass plant through the assembly line and power plant, to the coke and by-products recovery plant. All are enormous in size and are kept in the best of shape possible by the large cleaning crew.

Next we visited the Parke-Davis Co., and upon entering we were confronted by a sign, "Welcome Chemical Engineers, Ohio State University." This pleased everyone and together with the courtesy of the officials and an inside view of the plant and what they are doing to aid humanity in resisting disease, gave all of us a wonderful opinion of them. Their products are practically all pharmaceutical supplies but they work continuously in the laboratories to perfect and to find new serums, vaccines, and drugs.

That afternoon we visited the Michigan Alkali Co., and the Detroit Sulphite Paper & Pulp Co., and then took the train for Saginaw, Michigan.

The next morning we boarded buses for Midland and there we were the guests of the Dow Chemical Co., who have recently become known

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to aviation circles through their product, Dow metal. We did not get to see this part of the plant but as we spent the entire morning there we saw enough to keep us busy. Before starting our tour they gave us a blackboard talk showing the flow sheet of the plant. They start with brine pumped from their own wells and from this they manufacture such products as table salt, synthetic oil of wintergreen, chloroform, and undiluted aspirin. This aspirin goes to such people as Parke-Davis where it is mixed with corn starch and put in the form of the tablets which we buy at the stores.

We left the plant and at 12 started our homeward journey arriving in Columbus about 9:20. We were all very sorry we could not continue and we felt that the trip was well worth while. It was in reality the actual observation of the things we can only read of here. We cannot thank the individual plant officials enough and we hope they will grow to see bigger and better groups tread where we trod this year.

The department of civil engineering has arranged a display of instruments on the first floor of the east wing of Brown Hall. Besides the well known standard makes of levels and transits, there are also a number of foreign manufactured products. A large theodolite and other precise surveying instruments, as well as a new airplane compass include some of the devices not seen very often.