AUNT DAISY brings you the WEEKLY CHEER BUDGET

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SCOTLAND TURNS ITS FIELDS OF GOLDEN BARLEY INTO MALT

AS I have said, we had seen many fields of golden barley, all ready for harvesting, as our friends drove us through the beautiful country-side around Edinburgh.

Now we were to see the various processes through which the barley must pass, in order to become malt extract, with which we are all familiar.

The factory is about half an hour's drive from Edinburgh, at Kirkliston, another ancient and historic spot. The majority of the people there are dependent upon the factory for their livelihood, and it is very large, very clean, and very important, with every up-to-date appliance and appointment for the comfort of the large staff. It has pretty garden-beds too, and is altogether most attractive. I especially remember the marigolds!

Ode By Burns

In olden days it was a distillery, famous far and wide for its whisky; and it lies in a picturesque spot between two hills, one of which is crowned by a beautiful Norman church, while on the other stands an old inn, in which Robert Burns once spent a night.

Such proximity to the home of the national beverage must have pleased him, because he showed his appreciation by writing an appropriate verse of poetry upon his bedroom window-ledge.

Would he, to-day, on smelling the sweet odour of malt, hurry back to the inn and compose an ode to malt extract? I wonder.

They say there is no barley in the world so fine as that grown here. It has first to be cleaned from dust, and graded, before being stored in large silos for a period, until it is ready for the first stage of the malting process.

WE went down to the lowest floor to see the barley being released from the bottom of the silos on to a very fast-travelling belt which carries it to a bucket elevator (something like we see on a dredge, only that the "buckets" are small) to be taken up to a higher floor.

Here it goes into big conical-shaped vats of water, called "steeps," where it stays until it is "ripe."

The time for this varies according to the weather, but the average is about seventy hours, during which time the water is changed three times.

THE grain is now dropped down to the floor below into big "saladin boxes," where it becomes "malt." These "boxes" are like long tubs, which run the whole length of the great room, and are lined with perforated zinc.

They are three feet deep, and the swollen grain is levelled out, and then "agitated" by five "spindles" which keep turning slowly and regularly, in order that the grains may not only keep separated, but also get air, without which they cannot begin to "grow."

Following Nature

The spindles are electrically driven, and as the air comes in, it is drawn down through the perforations, making a constant circulation.

The "growing" or malting" takes, on an average, about eight days, varying a little according to the weather. They try to keep as near to Nature as possible.

It was very interesting to see the little threads sprouting from the grain. At the right time, the growing is stopped by "weathering," which was explained as "blasting with air."

FROM the "saladin boxes" the malt comes out on to a conveyor belt, and is elevated to the top floor, whence it drops down through a shoot into the kiln—a kind of big room, really, with a brick floor, which is perforated to allow the heat through from hot fires underneath.

A queer kind of "turner" moved slowly along the floor, from end to end, turning the malt over so that it should all dry evenly. It takes half an hour for this mechanical "turner" to go from one end of the kiln to the other, so that the malt should dry at just the right speed. The floor was hot enough to cause a faint blue haze to be noticeable above the malt.

The average time in the kiln is forty-eight hours. Then it must be cleaned again by a vacuum process, which takes off those thread-like rootlets, as well as cleansing it of dust. It is then stored in silos, where it matures.

The Mash House

THE next step is the grinding of the malt, which is done by a six-roller mill; and it is then conveyed by a "screw" to the mash house, where it is mixed with water and put into tremendous circular vats with dome-shaped lids of polished copper, called mash tuns, which look very spectacular, and must take a great deal of metal-polish and elbow-grease to keep at that continual stage of glitter.

In these tuns more mixing takes place, for a certain period, and the resultant liquor is clear, and is called "wort."

This "wort" is now drained from the mash-tuns, and boiled and concentrated in very big vacuum pans, something like those used in sugar refining. This is the last process, for when sufficiently evaporated, it is run off into tanks through very fine sieves, and is now called "malt extract."

It has now only to be mixed with chemical food, or halibut oil, or cod liver oil, according to order. By far the most important mixture, from a health point of view, is the one which includes yeast extract, halibut oil, and orange juice—the latter from Dundee—famous for its marmalade manufacturing!

This mixture combines all the vitamins necessary for building up health and resistance, and is very much in demand, especially by doctors and hospitals.

It is done in a special room, to which the plain malt extract comes in an overhead truck, to be put into a mechanical mixer with the other three ingredients. You hear me talking about this fine product in my morning sessions.

THE whole factory is kept in a state of almost hospital cleanliness—such shining steel and copper, and spotless floors!

The well-known amber-coloured jars are tested and sterilized; and then filled by girls in blue and white overalls and caps, who put the filled bottles immediately under covers so that no impurities can possibly get inside before they are capped and wiped, and labelled, and polished up.

World Distributors

In the busy season, some sixty thousand jars per week are filled and dispatched to all parts of the world!

I WAS quite sorry when our trip through the malt extract factory was over; it had been a most interesting experience, and quite a new one. The industry is such an important one, for malt extract is so much used nowadays in so many forms, and is known to be such a valuable food.

This particular factory is owned by the Distillers Company Limited, whose pavilion in the Glasgow Exhibition was one of the most educative and surprising of all the many "eye-opening" industrial displays.

Beside the "spirits" side of the company's interests (which was also most interesting, with its diagrams and models of modern stills as well as the whole story of Scotch whisky-production from the very earliest days) there was also shown the amazing industrial development.

For instance, we got an idea of the part played in industry to-day by ethyl alcohol; how carbon dioxide, evolved in its manufacture, is used; the extraordinary versatility of methylated spirits made from it; and how it is used as a raw material in the synthetic chemical processes which give a range of products of real national importance.

There were also wonderful examples of glass-clear mouldings in the forms of spirals, bowls, and electrical accessories made from "distrene"—a new plastic material which the company has evolved.

Chocolates, Too

There were even chocolates there, whose soft centres are manufactured from some product made from yeast! And some kinds of varnish made from synthetic resins; besides a new kind of motor spirit which is very good and very cheap to use.

Certainly "one thing leads to another" in a big company like this, with their chemists working in laboratories all the time, trying to discover how to make new things from different derivatives of the same foundation.

I can't remember nearly all the products in this D.C.L. pavilion, and I'm sure I've expressed it very imperfectly; my note-book doesn't quite express all I meant it to do, when I hastily scribbled down everything that was told to me as I went through; but perhaps you can get an idea of what I saw and enjoyed so much.

Next week I will tell you something of the Glasgow Exhibition.

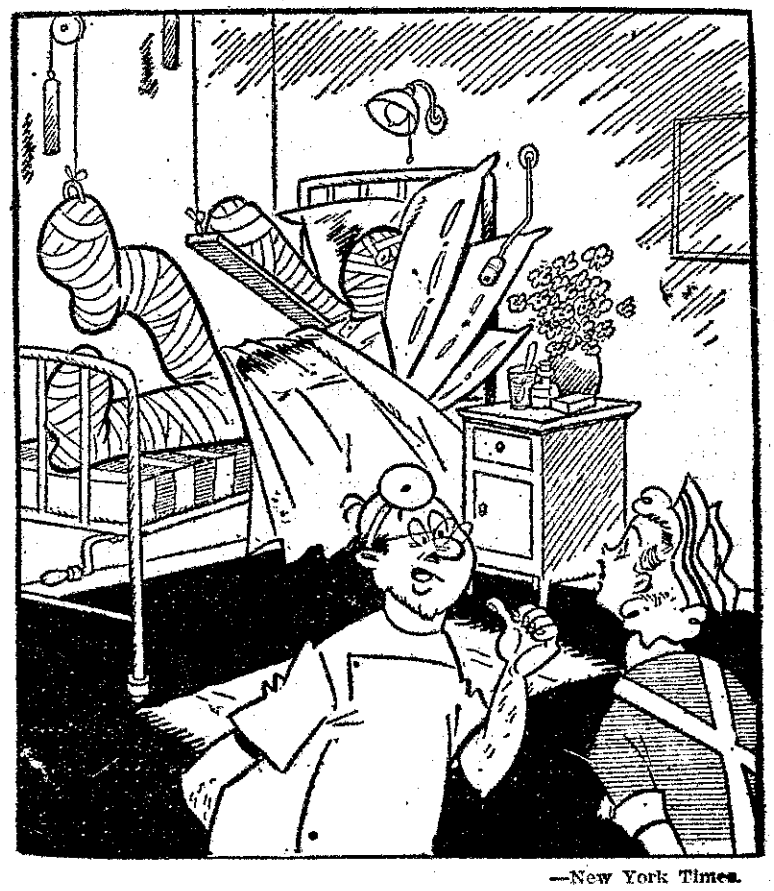
SEVEN-STORY SALON

Rubensteins, Fifth Avenue

A RECENT expansion of the Rubenstein Cosmetic Organisation was the opening of a seven-story salon in fashionable Fifth Avenue, New York. There are many departments in this "house of beauty," with a large staff of dermatologists, therapeuticians, gymnasts and other experts working behind the scenes.

Methods used in famous European spas were introduced, a sun-ray clinic was installed, and exercise rooms and a health-bar opened.

The health-bar serves food which is prepared according to the nutrition principles of the Bercher-Benner Sanatorium in Zurich. The salon proved an immediate success, and New York flocked to it.



—New York Times.

"His wife caught him making a rock garden with her biscuits."