

STALEY NEWS

Vol. 5--Page 1

July 1, 1942

Projects Progress

In spite of the difficulties we have had (and are having) in getting materials and equipment all of our construction projects are coming along pretty well.

THE OIL REFINERY ADDITION is finished, so far as the building is concerned, with the exception of a little touching up here and there. The new Sharples machines are installed and running, the refrigerating equipment will be in operation soon, the filter presses are being installed and most of the tanks are in or under construction. Question No. 1 at this reading is—when do we get our new deodorizers? They are promised for the middle of August but our memory goes back so far that we remember when they were promised for last December.

OUR TWO NEW DORR thickeners are also almost complete. We're waiting only for parts for the skimmers but we believe we'll get them.

THE PIPE LINE FROM THE oil refinery to the feed house is likewise about finished. Its job, you'll remember, is to take water which has been used for cooling at the Oil Refinery (and raised to about 95° F.) to the surface condenser on the roof of the Feed House where it will be used for cooling again (and raised to about 120° F.) The dodge is that we have ~~reduced~~ increased our capacity for pumping water from the lake and that our wells have been a disappointment and that this line allows us to re-use water which has not been raised to too high a temperature.

WE NEED FIVE MORE "SWEET-OSE" conversion tanks to put on the first floor of No. 10 building and it is probable that we'll do something that them soon if priorities can be arranged.

If we do, the paint shop will have to move out and we'll have to find a new storage place for soda ash but . . . well, maybe we can arrange those things too.

We are getting on with the projects that will allow us to do the tremendous production task that the war has set for us and getting along, considering everything, fairly well.



The Letter That We Can't Write to Johnny

Perhaps you've already seen "An Open Letter To Johnny (who doesn't work here anymore)". It's had a lot of publicity and deservedly because it's a swell piece of writing. The News had hoped to present it in the way it should be presented but that isn't possible because we have not yet reached 100% in our drive to sell War Bonds to Staley people.

Here's the letter and here too is an admission of open envy of the business concerns and factories who can print it AND MEAN IT.

"Dear Johnny:

"You're in the Army now.

"You're risking your life for us at home.

"We want you to know that we aren't forgetting.

"We want you to know your job's waiting for you.

"And that, small as our contribution is compared with yours, *we are all* making one as best we can, in Civilian Defense, Red Cross, U. S. O. or whatever we individually are best equipped to do.

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Our Transportation Headache

Our loading and shipping problems are getting a bit tougher each week. It's no secret that the war has placed terrific burdens on our transportation system and that lack of rubber will cripple the trucking industry or at least keep it from helping as much as it might.

It's no secret either that the railroads are doing a magnificent job of handling our country's transportation needs by making the most efficient use of their equipment and facilities. To do that they must have complete cooperation from shippers and we are trying to do our part and to help our customers do their part.

Part of the answer is bigger loads. We are asking customers who used to order 30 tons of bulk feed per car to order twice as much per car and customers who used to order 500 bags of bean meal per car to order 800. We are doing the same kind of thing with all other products.

Economy Is Now Secondary

Under ordinary circumstances excessive loading is not economical because it means more labor and better bracing to prevent damage in transit. It means more actual transit damage too and that the customer will have a tougher time in unloading.

It's harder work for everyone but the need for cars is so great that other considerations must be scrapped for the duration. It means careful planning, too, because some customers simply can't handle bigger cars (which are also higher) because their buildings don't have enough headroom. We have to remember those things when we fill their orders.

On tank cars we try to keep our supply of empties to exactly enough to last 48 hours. That takes some fancy planning because empties come back from our customers irregularly and sometimes we have too many oil cars and too few for syrup. Sometimes the reverse is true. When either thing happens we run a few into the paint shop and refinish the interior so they can be switched from one ser-

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NO LETTER TO JOHNNY (Continued from page 1)

"We're out for victory, Johnny, and for you.

"And there's not one of us that doesn't think of you when pay day comes and we save part of our pay in U. S. War Bonds and Stamps. We're not proud of it, Johnny, except that it buys the fighting equipment you need.

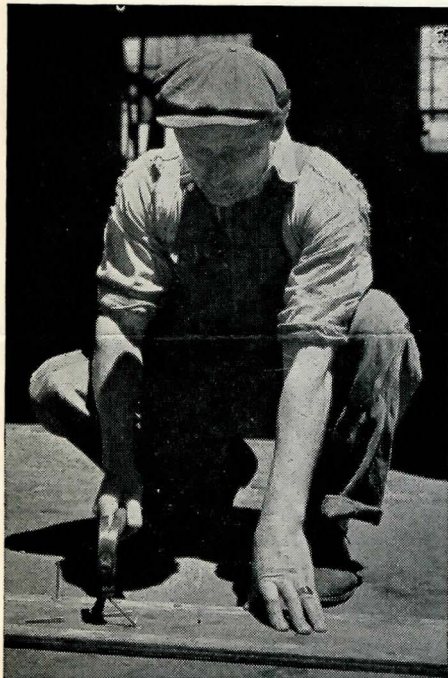
"It's just the least we can do, Johnny, but we're doing it 100%."

The News hopes, and you hope too if you're one of the more than 90% of our group that is buying War Bonds, that there will be a day when we can sign that letter, "Best of luck, the gang at Staley's".

Know Your

Staley Safety

C O D E



9. BEND OVER OR REMOVE ALL PROTRUDING NAILS.

- The germs of tetanus (lock-jaw) cling to rusty nails.
- Even without tetanus a nail puncture is very painful.
- Thin shoe soles are poor protection against nails.

IF YOU ARE ONE OF THE 9% THAT ISN'T BUYING, HELP US MAKE THAT HOPE A REALITY. DON'T KEEP 91% OF US FROM TELLING OUR OWN HUNDRED SERVICE MEN SOMETHING WE'D BE AWFULLY PROUD TO SAY.

WE CAN AND WE MUST PUT OUR MONEY INTO THIS WAR BECAUSE WE CAN AND MUST WIN IT.

LET'S BE ABLE TO SAY TO OUR OWN BOYS, "It's just the least we can do, Johnny, but we're doing it 100%."

First Aid Courses Available to Staley Employees

The American Red Cross has been staging a drive to teach the people of this country First Aid as a part of the Civilian Defense Program. Part of their plan is to contact the large manufacturing companies to enlist their employees in First Aid Courses. In line with this, they have asked the Staley company to organize classes and we are glad to do it.

The set-up will be something like this. As soon as enough employees have signed up who can take the course at the same time, we will call the local Red Cross and they will arrange for an instructor.

The classes will be held at various times of the day according to the demand. For instance, if there is a group that gets off work at 3:30 and would like to have a class right after work, we will arrange for that. Or there may be a class in the evening at 7:00 or 7:30. Whenever enough men working on the same shift have applied, we will arrange a schedule that will not interfere with their working hours.

This is to be a sort of three-way partnership affair. The American Red Cross will furnish the instructors and take charge of the classes. The company will furnish the classroom, books, and any other necessary equipment. You will furnish your time. This is entirely a voluntary proposition on your part and the classes will be held outside working hours.

The classes will be held twice a week and will be two hours long. It will take eleven sessions to complete the course and regular attendance is required by the American Red Cross. If you are interested see Mylo Roberts in the Safety office.



By Mylo Roberts

In the first half of this year we have had 85 Late Reports to First Aid. If we go on at this rate we will have 170 for the year and our record will be the worst in six years.

In 1937 we had 201 Late Reports to First Aid. Since then they have steadily decreased to 119 last year. Now, in one-half year, we have had nearly three-fourths of the number of late reports that we had in all of last year. It will take some real bearing down to break last year's record.

We can do it, however, IF . . . everyone reports every injury, no matter how small, to First Aid as soon as it occurs. If you are injured at night or during the hours on Sunday when the nurse is not on duty, go to the Laboratory. The attendant there can take care of minor injuries and will call the nurse or the doctor if the injury is at all serious.

Many of our late reports this year have been due to new men who were not completely familiar with our rules but some of them are charged to old timers and repeaters. Fifteen percent of all the late reports we have had in the last eight years are charged against 39 repeaters each of whom has reported late four or more times. Don't add your name to that list.

* * *

This year, of all years, our nation cannot afford the huge toll of life and property that Fourth of July accidents invariably bring. Every American must be alive and able on the fifth to do the tasks the war imposes on us.

Take more precautions this year. Go swimming and boating only where there are life guards. If you are going to drive somewhere (you really can't spare the tires) drive carefully.

Whatever you do—PLAY SAFELY. Your job and your country and your family are going to need you just as much on the fifth as they do now.

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 For The Employees of
**THE A. E. STALEY
 MANUFACTURING COMPANY**
 DECATUR, ILLINOIS
 W. G. Reynolds, Manager of Personnel
 Roy Rollins, Editor

Let's Stop Cheering And Groaning

Let's Plug All the Time

A few weeks ago all of us were walking on tip-toe because of our naval victories in the Pacific.

As this edition of the News goes to press our heels are thudding heavily because of Nazi successes in North Africa and the Crimea and Japanese landings in the Aleutians.

Neither of those attitudes are right ones for the greatest nation fighting the greatest war. Both are the product of our inexperience in this game.

Our military machine is the young pitcher who just came up to the majors and is now going in to relieve with the score four to two against the home team in the first half of the third.

We're up against a tough ball team. There are men on base and the heavy end of the batting order is still up.

We know we're good. We remember our unbeaten record but we can't help the feeling that the whole game is riding on every pitch. That's why we yell our heads off every time a strike goes down the middle and close our eyes and groan when a ball misses the outside corner or we hear the crack of the bat.

We need to quit yelling and groaning. We need to remember that our pitcher is young and strong and that he is gaining experience with every pitch. We need to remember that the ball game is young, that our heavy hitters are coming up again and will score again and that the opposing pitcher, although crafty, is tiring and is past his peak.

We need more of the grim determination that has always led Americans to say that the ball game isn't over till the last man is out. Plenty can happen in the next six innings and our boys will see that it does.

A team that won't be beat can't be beat.

MORE ABOUT TRANSPOR- TATION

(Continued from page 1)

vice to the other. That isn't economical either but it keeps our tank cars rolling and that is the prime consideration.

The Interstate Commerce Commission is doing its part to keep equipment in service by tightening demurrage rules so that instead of being allowed two free days, four days at the rate of \$2.20 (cancellable by building up credits for prompt handling of shipments) and \$5.50 per day thereafter, we now have two free days and only two at the rate of \$2.20 and debits may be charged off only by accumulating two credits to cancel one debit.

Business Up—Deliveries Down

Our local deliveries are suddenly a headache, too, because in the face of an 80% increase in Decatur business we have been ordered to cut our local delivery truck mileage to 75% of what it was last year. We are still looking for an answer to that one and may find it by making local deliveries only every other day.

We are still getting enough cars to load our products out but there is a shortage of good cars and we are increasing the size of our loads in cars of a kind we wouldn't have accepted a short time ago. This problem needs your help, too. Supplies must be received and products must be shipped

and anything you can do to speed either or both is essential.



For Sale—One single stage air compressor with high pressure tank. Very reasonable. See George Truebe or call 2-7469.

For Sale—A set of matched irons and woods and a new bag. Cheap. See or call John Anderson.

For Sale—A black leather baby buggy less than one year old. Call 2-7858.

You can still call John Galembach at 6473 for hot bed plants. He has wax peppers, tomatoes, cabbage, red peppers, sweet potatoes and a few others.

Call Mr. Henry Buckley (2464 E. Garfield or 2-4816) for fill-up coal. He can supply Hawthorne, #1 Brazil Block, Glo-Coal, Eastern Kentucky or stoker coal at reasonable prices delivered and—you don't have to have the cash. Pay 20% down and the balance in weekly payments.

Two acres on the north side of Route #47 three-fourths of a mile across the lake. Will sell or trade for city property. Also—dining room suite (round table and six chairs) in light oak for sale cheap. Also—a 75 lb. ice box. Also—Grates for a 28" Mont-Ward's DeLuxe Furnace. For all or any of these bargains see John Monaco at 619 S. Maffit St.

Wanted—a Johnson Outboard motor. See Virgil Grady, Standards Department.



"Glucose" was the term originally applied by the German chemists who discovered it to the dextrorotatory (capable of turning polarized light to the right) sugar which we and the English call dextrose. When the pioneers in our industry started making a light colored, uncrystallizable syrup by the incomplete conversion of corn starch they mistakenly called it "Glucose" and as a result there remains a certain amount of confusion as to just what the word really means. To avoid that confusion our industry is coming more and more to call the product C. S. U. (Corn Syrup Unmixed).

It is reported that Merle Finson is so interested in his work that when folks call him on the phone at home during his day off he automatically answers, "Time Office".

Those toothpaste tubes may not look big to you but sixty of them contain enough tin to solder all of the electrical connections of a medium bomber.

Your body not only converts starches into dextrose before using them but does the same thing to other forms of sugar.

Refinery Hits New Production Marks

The old Worthington steam pump in the first floor of #21 Building is beginning to realize that there really is a sugar shortage. There was a time when the job of delivering starch to the Refinery didn't look very tough to a fellow who could pump 250 gallons a minute but now he's beginning to wonder.

When he transferred from the Refinery to the Filter House in 1937 he could loaf along and still do his job with the greatest of ease. But now, in the first six months of 1942, he has already pumped more starch than he did in all of 1941 and 1941 was the Refinery's biggest production year. The Worthington is beginning to act like maybe we ought to give him a helper.

Which gives you an idea of the size of the job the Refinery is doing. Almost since the start of the depression our Refinery problem has been to make as LITTLE as we could and still maintain the quality of our product. Today our problem is just the reverse.

The sugar situation is the reason for the change but even so, when a department doubles its production without doubling its equipment or manpower there has to be a way to do it as well as a reason. That way is worth looking into.

The Refinery's Job

When the Worthington picks up its load of double washed starch it gives it a long ride to the receiving tubs on the 10th floor of #10 Building. #10, you'll remember, is the west half of the Refinery and #5 is the east half. From there the starch drops (in 5,000 gallon batches) into the measuring tub on the 9th floor of #5. The measuring tub feeds it slowly into the open convertors on the 8th floor where a boiling mixture of hydrochloric acid (HCL) and water is waiting to start the conversion of starch into glucose.

The actual process of conversion is about the same as happens in your own stomach when you eat starches. The HCL acts as a catalyst (that is, it causes a reaction but does not enter into it) and its presence in the boiling starch water causes the starch ($C_6H_{10}O_5$) to combine with the water (H_2O) and form dextrose ($C_6H_{12}O_6$). By the time the convertor is full the conversion is well under way and the batch is dropped into the closed convertors on the 5th floor where it is cooked about eight minutes under 35 lb. steam pressure. The convertor operator tests the starch constantly to determine the purity (degree of conversion from starch to dextrose). Glucose is commonly converted almost half way (a purity of 42), "SWEETOSE" about two thirds of the way (62 purity) and dextrose (corn sugar) all the way. It is worth noting that "SWEETOSE" is acid converted only to about 50 and that the conversion is carried on to 62 by enzymes.

When the batch reaches the proper purity for the product being made the steam is turned off and the batch is pumped to the neutralizers on the 7th floor where soda ash is added to neutralize the HCL.

From the neutralizers (which stop the conversion process) the batch goes to the liquor presses on the 3rd floor where the salts formed by the reaction of soda ash and HCL, together with the small amounts of fat, oil and gluten that came over with the starch, are removed from the liquor. The press cake or "mud" is then pumped to the Feed House where it adds nutritive values to our Gluten Feed.

The clear liquor which comes through the presses is pumped next to the bone char filters on the 8th floor of

#10 where any remaining impurities are removed and then drops to the light liquor pans on the 4th floor of #5 where it is boiled down from 18° Baume to 29°.

Glucose which is to be made into "SWEETOSE" goes next to tanks on the 1st floor where it is treated with the enzymes which carry the conversion on to higher purity without producing the bitterness present in acid converted dextrose.

Glucose which is to continue through the process as glucose skips this step and goes from the light vacuum pans back to the bone filters and is filtered twice more. After the final filtering it goes to the finishing pans on the 4th floor where the Baume is raised to whatever our customer ordered (usually from 41° to 45°). From there it goes to #17 Building for cooling, packaging, loading and shipping.

All of the equipment mentioned above is split into two separate systems which may be operated separately or together. The larger (which we call "the big side") has always been used for glucose and "the little side" (which has almost three-fourths the capacity of the big side) has been used for sugar, "SWEETOSE" and special syrups of one kind and another.

"Big Side" and "Little Side" Switch Jobs

But, when the sugar shortage put the heat on the Refinery, we had to stop the manufacture of sugar and special syrups entirely and to start making "SWEETOSE" on the big side and glucose on the little. We are a bit cocky about the fact that we made all the piping changes one bright Monday morning and didn't lose a single conversion. The net result is that we are booming more pounds of glucose through the little side than we used to make on the big side and that the whole Refinery is running at about 130% of what we used to consider maximum capacity.

Several things have made this possible. We have added liquor skimmers ahead of the presses to relieve the load on them and we have made a few minor changes in equipment. Most important, however, is the fact that we are making just *two products*, "SWEETOSE" and glucose and it is never necessary to stop and clean one type of product out of the system so that another can be run.

The Refinery is our Number One Production Star for 1942 and because it is humming as only a well organized crew that knows its business can make a department hum, more people all over the world are using syrups made with Staley "SWEETOSE" and glucose and—a lot of them will keep on using them after the war is won.

We'll Keep Some of the Increase

The last war boosted the annual home consumption of corn syrup in this country from 125,000,000 lbs. to 500,000,000 during the war years and after the war it dropped only to 250,000,000 lbs., *twice what it had been before the war*. It has remained at the latter figure with an amazingly small amount of variation ever since and, since we are now offering a much better product that anyone knew how to make then, we have good reason to believe that we will retain a good portion of our increased syrup business after the war.

In the meantime the old Worthington will just have to keep on working overtime so that the Refinery can get on with the important business of breaking production records. If the priorities business doesn't get too tough we may be able to do something about getting him a helper too.