

STALEY NEWS

Vol. 4—Page 1

August 1, 1941

Priorities Begin To Pinch

The priorities system, mentioned in our story on "Substitutions" two months ago, is getting tougher to live with every day. Some of the people upon whom we depend for machines, tools, parts and supplies are now taking orders on which they will make no promises of delivery before 1942. Others accept orders on the basis that delivery will be made a certain number of weeks *after they themselves obtain raw materials*. Still others will accept no orders which cannot be filled in three month's time.

All of which leaves us on the uneasy seat. Stainless steel can't be had from the mills in less than 6 to 10 months. Companies which have been supplying us with copper and brass are now prorating the supply on the basis of last year's orders.

Aluminum paint, which we have used liberally in the past, is already practically a memory. The tiny supply we have on hand is to be used for one purpose only; refinishing the inside of tank cars.

Chlorine, needed in quantity for the production of chlorinated starches, has been so far restricted that we are seriously considering building a plant to make it. Our final decision will wait on the army's decision as to how much chlorine is needed for drinking water at the various camps and the manufacturer's decision as to how much they can make. Sulfuric acid, which we use in large quantities, may also be restricted. The tin plating on our syrup cans is thinner, which means more careful handling of cans and avoidance of scratches which may lead to rusting.

Manufacture of some types of speed reduction gears has been discontinued until 1945 and the government needs *plenty* of the types that are left. Which means that we *can't* scrap a reduction gear now, no matter what its condition may be. We'll have to patch it up somehow or go without. And valves. We'll be re-

(Continued on Page 2)

Fellowship Club Athletes Get Insurance Coverage

Coverage To Be Same As Workmen's
Compensation

As of July 1, 1941, on which date our workmen's compensation insurance policy was renewed, we extended its provisions to cover employees injured in athletic activities sponsored by the Fellowship Club.

This will mean that if a Staley employee playing with a Fellowship Club team is injured while playing or practicing our insurance will pay for all necessary medical and hospital care and will pay him compensation while he is unable to work at the same rate that he would have received had he been injured on the job.

An extra benefit which goes along with this new plan is the fact that all injuries, even the most minor ones, will be cared for by our First Aid facilities in the plant. If the injury occurs during the time our nurses are on duty (7:00 A. M. to 4:00 P. M. on weekdays) they will give first aid. If it occurs outside of those hours it will be reported to the First Aid attendant in the Laboratory and he will decide whether to care for it himself or call the nurse or doctor.

In short, the set up will be the same as for occupational injuries which brings up one more point. Over the last four years all of us have done a swell job in cutting down the number of late reports to First Aid (injuries, large or small, which are not reported *the same day they occur*) and we aren't going to want the number to increase because of this new addition. Athletic injuries, *no matter how small*, must be reported promptly unless said athletes are prepared to do a great deal of listening.

It is hardly necessary to point out that this arrangement will take a load of worry and expense off both the Fellowship Club and employees who take part in athletics.

How To Make Better Use of Our Credit Union

II
THE CREDIT UNION SHARE
ACCOUNT

It was mentioned briefly in last month's Credit Union article of the advantages of depositing your savings in a share account.

Credit Unions are organized for the *purpose of promoting thrift* as well as to make modest sized productive loans.

Any employee of this company may become a member of the Staley Credit Union by paying an entrance fee of 25 cents and by instructing the Treasurer to have specified amounts (not less than 50 cents per week) deducted from his pay check at regular intervals. As soon as these small amounts equal \$5.00, the price of a fully paid-up share, the share starts accumulating dividends which are paid on all fully paid-up shares. This dividend rate has never been less than 6% annually since organization of the Credit Union.

For the benefit of those members who may wish to withdraw share account balances, either for special purposes, or at the time they leave the employ of the company, dividends are declared semi-annually but are not paid or credited to share accounts on the semi-annual date unless the above conditions exist.

The Board of Directors has set a top limit on the amount any member may save with the Credit Union of \$2000.00 which represents 400 fully paid-up shares.

Many members prefer to save with the Credit Union for a number of special purposes: Vacations, taxes, (including personal and real estate and income taxes), life insurance premium payments, savings for the down-payment on a home, repairs and replacements for the home and its equipment, purchase of securities, for college tuition and expenses for children, purchase of automobiles,

(Continued on Page 2)

More About Priorities

conditioning valves that we couldn't have afforded to spend any time on six months ago. And ball bearings. There isn't any use asking for them any more because manufacturers haven't time to listen. They promise, however, that they will be able to recondition old bearings and we are happy to hear that. Don't throw away *any* ball bearings. New balls and spacers can be fitted in. Races can be built up and machined to size again. But *new bearings* can't be had.

Substitutes Are Scarce Too

Rubber will shortly go under rigid priority and we'll have trouble getting hose, belting and gaskets. Neoprene, a superior artificial rubber, is long gone. Defense industry has needed more neoprene than it could get for some time. And so it is with most substitutes. Many who can't get aluminum would like to substitute magnesium, which is scarcer. We could bear losing a certain amount of our stainless steel if we could get all the galvanized metal we need but—galvanizing demands zinc and zinc ranks with aluminum, stainless and copper on the "rare metals" list. We received last month an order of galvanized due since January. We hope the next delivery will be some time in December.

We Would Have Been In The Clear But—

We saw this situation coming along some time ago and thought we were coping with it nicely by ordering stocks of the materials we would need but—you can't anticipate every need and too—a six month's supply figured on a small grind may only be a three month's supply when the grind goes to capacity, as it has. Then too, we'd like to do some construction. We'd like a gluten meal plant and a larger levulinic acid plant and an addition to the oil refinery. The IF in all of these is the difficulty in getting materials and machines.

So two things are essential.

First, our purchasing department must leave no stone unturned in their search for the things we need. Second, waste must be cut to zero. Motors must not run unless they are working. A gear with a broken tooth must be fixed rather than scrapped. Every scrap of stainless, copper, brass and galvanized must be saved. Because we are in the food business,

and because food is necessary in a war, it seems likely that the government will see that we get enough material and machines to keep going. But there will be nothing extra, nothing to waste. The problem of seeing that there is *no waste* rests on all of us and you can help. Thrift will keep our plant going.

More About Credit Union

and household appliances of all kinds.

We have all been reading of the tremendous increases in taxes to be levied by the Federal Government this fall on this year's income to be paid next spring when income tax paying time comes around. The billions of dollars already spent and to be spent by the Government for Defense, Lease-Lend activities and ordinary governmental expenses will have to eventually be paid for out of tax income. The best estimates we can obtain from Washington, D. C., are that for those employed with annual incomes of less than \$10,000 the increase in taxes for 1941 (to be paid in 1942) will be roughly three times the taxes paid this year on the income for 1940.

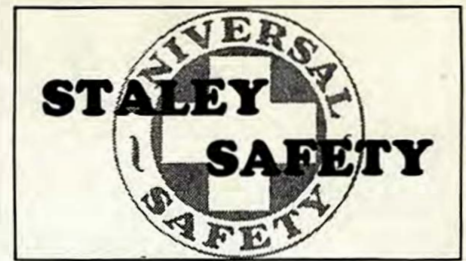
We suggest that you begin now to set aside amounts in the Credit Union share account to provide for the payment of these vastly increased taxes. While you are saving this money for a specific purpose you will be getting attractive dividends for the use of your money by the Credit Union.

Another suggestion has been made by one of your thrifty fellow-employees. "Save the additional earnings which are now being paid to all hourly employees, announced by the company last week as a general 8% wage increase." By saving all or a part of this increased income you and your family will be protected when tax paying time arrives by having the money available for payment without the necessity of borrowing from the Credit Union.

You will also be following out the announced policy of your Government which is "Save in 1941 to pay the taxes due in 1942."

Come in to the Credit Union Office and find out how easily and relatively "painlessly" you can arrange to build up your shares account now.

The Educational Committee
Of the Staley Credit Union.



Our plant is large and our processes are not only varied but constantly changing. Because these things are true the safety picture changes.

A job that was dangerous last month is changed until today it is safe. Due to a new machine, method or material a job that was safe last month has a hazard which must be recognized and guarded against.

This means that we need not one safety director but 1500. You can watch your job. You know when it is changed and if there is one new thing about it that you believe to be dangerous, see your foreman. He is as anxious to prevent injuries as you are to keep from being hurt.

Between you, and occasionally with the help of the superintendent or safety director, an answer can be worked out to every problem. But not if you conceal or ignore the danger and not if you take the attitude that "that's none of my business".

Safety is your business if your life and health and job are your business so let's take care of it. Last year's record, which was not a good one, can be beaten and you have a stake in that victory.

Safety shoe sales so far this year have been less than last year's but that hasn't been your fault nor ours nor the shoe manufacturer's. The task of providing shoes for our rapidly expanding army and the host of new workers in defense industry put so much of a strain on the shoe companies that they fell behind for a while in their deliveries and our stock in the Safety Office went to less than half its usual size. But the shoe industry is meeting its emergency now and deliveries are getting back to normal.

If you tried to buy safety shoes a month ago with no success come back and try again. We'll be able to equip you now.

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

\$1,038,153.58 Earned In First Half

During the second quarter of 1941 the Staley Company earned an estimated net of \$549,431.24. Added to first quarter earnings of \$488,722.34 this brought our estimated net for the first half of 1941 to \$1,038,153.58. None of these figures are exact because no 1941 earnings figure can be exact until Congress determines what the tax rates will be and how corporation taxes will be figured.

Our reserve for taxes at this time is about *twice as large as it ever was before* and we hope that we have allowed enough but we won't know for sure until the Tax Bill is passed and signed by the President. In the meantime we, in common with a great many other companies, are basing our tax estimates on the last proposal made in the Ways and Means Committee of the House of Representatives. It will probably be late September before that proposal, or some other, becomes law.

On a greatly increased volume of business in the first half of 1941 we made only \$26,535.57 more than we made in the first half of 1940. An 8% increase in hourly wages granted June 1st will be reflected in future earnings figures. Our third quarter earnings are usually the lowest of the year.



Jesse Stark, 1504 E. Main (Phone 2-5811) has for sale the following:

One Underwood No. 5 Typewriter with 12 in. carriage, \$25.00.

One Dome Top Hot Water Heater, coal fired, one year old, \$5.00.

One "Colonel" Schick Electric Razor, \$5.

One full sized south front lot at 1600 W. Cushing, price reasonable.

Call 2-1306 or at 994 W. Marietta for:

One Philco Highboy Radio, \$10.00.

A dining set (table, 6 chairs, buffet) and two rockers, prices arranged vocally.

Group Hospital Plan Now Open For New Members

On August 5th the Hospital Service Plan will be re-opened for new members from the Staley employee group. Application cards and information may be secured at the Credit Union Office or the Personnel Office in the Administration Building.

Membership rolls will be opened promptly at 8:15 A. M. on August 5th and no applications will be accepted after 4:00 P. M. on August 15th.

More than 800 Staley families are now members of the Hospital Plan so you may rest assured that you are joining a proved and worthwhile Plan for assuring the payment of any hospital expenses incurred by yourself and your family.

W. G. Reynolds
 President
 The Decatur Hospital
 Service Corporation

Know Your Staley Safety CODE



1. DO NOT CARRY MATCHES OR LIGHTERS OR DEFECTIVE FLASHLIGHTS INTO THE PLANT. DO NOT SMOKE EXCEPT WHERE SMOKING IS PERMITTED.

This is Safety Rule Number One because our lives depend on its strict observance.



By Tony Romano

Well, folks, our Staley baseball club is sure enjoying a great year with a total of 12 straight wins and no losses.

On June 29th Staleys defeated Beason 7 to 4. Doolin started and was relieved by Glenn Heriot who pitched the rest of the game (3 2/3 innings) striking out 9 men while allowing 2 hits and walking 1, chalking up his first win.

July 6th Staleys won over Taylorville Merchants 13-0, a *no-hit no-run game* for Hilberling. July 13th Staleys beat Peoria Caterpillar 9 to 7, Heriot starting with Hilberling relieving in the fifth inning, bases loaded, and winning the game by holding Caterpillar to 2 hits and a walk. On July 20th Staleys beat Peabody Coal of Taylorville 11 to 3, Joe Hilberling winning number eight for himself.

In these four games the big guns have been Dave Hopkins .555, Irv Smith .412, Hilberling .333 and Kelly .312, with the rest of the team coming through with timely hits and many fine defensive plays.

This is the first year Staleys has ever beaten the Peabody Coals or the Peoria Caterpillars. We are very proud of those victories.

Softball

Since our last report in the June issue of the Staley News we have won 8 and lost 5, which isn't quite as good as we would like but, considering that we have won-8 out of our last 9 starts, isn't too bad.

Our boys are getting some timely hits and playing a much better defensive game, which accounts for the better record.

The mean hitters are Joe Hilberling, John Zienkosky, Harry Logue, Joe Jones and Pete Kelly. Each is hitting the ball well over .300.

Levulinic Comes Through

By 1873 Bismarck had united Germany under Wilhelm I, won Alsace-Lorraine from France by a perfectly planned war and was proceeding to the labors of peace; to building up the science and industry of his victorious nation.

In those prosperous times two German chemists, A. F. V. Grote and B. Tollens, studied sugars, their nature and structure; their reactions to various chemicals. As one result of their work they published a paper on, "The Acid Produced By Heating Sugar With Sulfuric Acid". The acid came to be called Levulinic (from levulose sugar) but, though Tollens continued to work with it, it was of interest only in the field of pure science for more than 65 years.

Too little was known about it and it was too expensive (\$3.50 a lb.) to attract industrial chemists. So it kicked around the laboratories of the world as a chemical curiosity until a few years ago when it was found to be an excellent plasticizer (softener) for use in the manufacture of plastics and transparent wrapping materials.

We became interested because starch is convertible to sugar (and hence to levulinic) and because new markets for our products are business insurance. But—if we were to turn this curiosity into a commercial reality, the price had to be much less than \$3.50 a pound. So the laboratory went to work.

And The Laboratory Won

By March, 1940, we were ready to go. We made up a little leaflet which said bravely, "INTRODUCING LEVULINIC ACID, now available in any quantity from pounds to tons", and sent it to every industrial laboratory in the country.

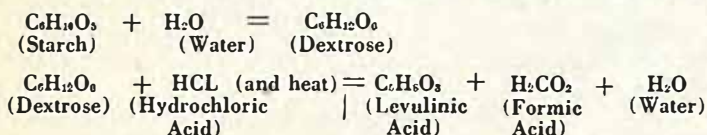
We also prepared a bibliography of references in chemical literature to Levulinic and sent it to those who might be interested. It contained 238 references, was widely complimented and (we're boasting) scholarly enough to be requested by the Library of Congress. A second edition (315 references) was issued and a third (with about 450) is being prepared. With the assistance of these and an ad in a chemical magazine, we were in the Levulinic Acid business; the *first company to ever produce it commercially*.

The size of our contribution is best measured by the fact that we first offered the acid for 30c a pound and now offer it at 18c in contract lots of 1,000,000 lb. a year.

Starch To Glucose To Levulinic

We make levulinic by adding hydrochloric acid to a heavy starch slurry and digesting it. The starch is converted into dextrose (as in the Refinery) and then breaks down into levulinic acid, formic acid and a carbon material called humin. After digestion, a centrifuge whirls out the humin and a vacuum evaporator removes the remaining water, hydrochloric and formic acids. The remainder is a mixture of Levulinic and tar and a distillation process separates them.

The formulae, in case you're interested, are as follows.



In the chemically pure grade, Levulinic is a colorless liquid which solidifies at 91° F. In Grade A (98-99%

pure) it is a straw colored liquid with a faint burnt sugar odor.

It Can Be Used For—You Name It

When you think of its possibilities you can let your imagination run riot. Under "Uses" the "INTRODUCING" leaflet said hopefully, "It is believed that many valuable uses for the acid and its derivatives will be found when exploratory work is undertaken". Briefly reviewed were its uses in the preparation of pharmaceutical (medicinal) salts, synthetic aromatic chemicals (perfumes and flavors) and as a mordant (color fixing agent) in dyeing and printing cotton yarn and fabrics. Suggested was its use as a plasticizer in the manufacture of plastics and transparent wrapping materials. Not suggested, because not yet dreamed of, were dozens of other possibilities now coming to light.

Already our customer list looks like a "Who's Who In Industry" and includes the chemical, rubber, plastic, petroleum, textile and rayon industries. The demand for samples has been so heavy that we have had to charge for packing and mailing them. In addition to the interest aroused in industry, hundreds of colleges have asked for samples and some are deep in experimental work.

Our Customers Have Us Guessing

The extent of incomplete experimental work prevents our telling what may be the most interesting parts of the story as yet. We know what some of the experiments are but—our customers will be seeking patents when they are completed and we can't violate their confidence. What some others are doing we can't even guess.

We know, of course, that the plastic, synthetic rubber and rayon industries are making increasing use of levulinic as a plasticizer but we can't guess what a brake band manufacturer would be doing with it. We know that a cheese company is using it to make the first transparent wrapping material which is proof against insects, cheese mites and mold but we don't know why the explosives industry is interested. Pharmaceutical houses are making a calcium salt useful in cases of calcium deficiency but why should a button maker be experimenting with it? We know that the oil industry is using it to work out a chemical method of refining oil but we wonder what the colleges are finding out.

Naturally, it is not yet possible to predict how important levulinic may become as a source of income to us. We are still in the shirt-losing stage and won't be out until we are producing on a larger scale. But we remember going through the same thing with soybeans and "SWEETOSE" and we hope—and believe—that we have "got sump'n here".

Levulinic touches the field of plastics (furniture, windows, table ware, auto bodies and tools), plastic fibre (clothing, hats and shoes), synthetic rubber (soles for the shoes, tires for the car, gloves for washing plastic dishes), transparent wrapping material (to replace metal foils), paints (better than those we now use), flavors, perfumes, inks and petroleum refining.

Someday you'll be saying that you remember when Levulinic was only a lab project and bragging that the Staley Company introduced it to industry as a tool for better products, to the farmer as another use for the products of his farm.