

# STALEY NEWS

Vol. 4—Page 1

June 1, 1941

## We Buy Some More Wringers Feed House Bottleneck Will Be Broken

Our Feed House can be regarded as a gigantic wringer. The Steep and Mill House are busily engaged in soaking corn in water both before and after milling and the biggest job the Feed House has, after assembling the materials which are sent to it, is to get that water out again. There are several ways to do the job and we use all of them.

If you've ever made candy you know that the best way to get the water out of the dissolved solids in it is to boil it out. That's why we have vacuum pans. We use our Feed House pans on the steep water and we want the water going to them to be as full of soluble solids as possible so that the pans can do the maximum of boiling down.

The best way to get *insoluble* solids out of water is to strain them out. The housewife does that with a sieve and we do it with filter presses. Grits and gluten going to the Feed House get this treatment first and then go on to the fire driers. Driers, incidentally, are the next best way to get rid of water and, if you were choosing between fire and steam driers on an economy basis, you would probably choose fire driers.

The reason that we have regarded the Feed House as a bottleneck was because it lacked capacity to do its essential wringing out job. If you've seen the pile of feed on the third floor at the end of the week you have probably felt that the real failure was lack of fire drier capacity because that is where the log jam occurred. But drying, as indicated above, is a reasonably flexible process and, given a choice, you'll choose the cheapest way that will work. The cheapest way in our case was to do a longer and better job of filter pressing.

## Feed Press Room Extended Across The Tracks

We are moving to break our bottleneck by adding more plate and frame presses. As we told you last month, they are not what we would have preferred but with a war on they are the best we can do. In order to provide

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## The Zamzam Carried Staley's Starch

The fellows on the Loading Gang in the Packing House didn't realize that they were wasting their time last January 14th when they loaded 320 140 pound bags of Powdered Food Starch into a box car and sealed the door and their time wouldn't have been wasted but for the machinations of one A. Hitler.

The shipment went to New York and was loaded onto an old Egyptian vessel called the Zamzam. (The Zamzam was originally built to carry Moslem pilgrims to Mecca and had an elaborate mosque amidships). The starch was consigned to one Issacow Baruch in Tel-a-viv, Palestine via the Cape of Good Hope and the Suez canal but it never arrived. Hitler's boys sunk it in the South Atlantic and Issacow is short 44,800 pounds of starch which he needed very badly.

## Oil House Bottleneck Broken Soyflour Equipment Diverted To Germ Processing

To eliminate the Oil House bottleneck which we described to you last month we have diverted some of our soyflour equipment to the use of the ~~Corn Oil House~~. Fortunately, the Soyflour Building is connected to the Oil House so the changes were not too difficult.

The Corn Oil House was crying for help. A six day capacity grind so completely overloaded it that we were reduced, on one or two occasions, to wheeling germs to the soyflour expellers in barrows in order to clean up the week's grind. There wasn't a possibility of grinding seven days a week as long as this condition existed.

We had already moved three R-B expellers (which have twice the capacity of the old No. Ones) from the soybean expeller room to the Corn Oil House but still more expeller capacity was needed. We couldn't keep from casting a covetous eye at two RB's in the Soyflour which were not being used to capacity.

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## Substitutions

### Plastics for Metal, Cast Iron for Bronze

Thus far we have been foresighted enough and fortunate enough to escape the pinch of priorities but the near future may provide us with some substantial worries in regards to the materials we will need to keep our plant running. For example, we've learned to use more and more stainless steel in the past few years because it resists corrosion and insures against metallic contamination of our product.

Szlesmen have been telling us for some time that deliveries would be slow on stainless but now they have changed their tune and when you want to talk about stainless they just say very flatly, "That's out. You can't get it." We anticipate that we'll be getting to the same point some time in the future on copper and bronze and we are beginning to look for answers.

One of the answers will be to save our copper, bronze and brass scrap very carefully. It seems probably that the time is coming when we will have to furnish metal as well as patterns when we want castings made.

Another answer will be plastics. A great load is being placed on plastic manufacturers because we aren't the only company that will need their product and because, ironically, the plastic industry is a bit short of metal for molds. In time, however, plastics can supply lots of answers. Their basic raw materials are phenol, formaldehyde, soybeans, coal, petroleum, milk, wood and even air. No chance for shortage there. Processing, once plants are built and molds made, is relatively fast. It has been estimated that the plastic industry will be as big as steel if it continues to grow at its present rate and the war is giving it a boost.

We are especially interested in plastics because some types are not affected by acids or alkalis. We have already installed three plastic tanks in No. 19 Building to handle acids and there will be other uses. We may be able to replace stainless or bronze piping with plastic pipes. We may use plastic shafting, gears, pump valves and impellers, vent stacks and fan

(CONTINUED ON PAGE 2)



## MORE ABOUT OIL HOUSE

Germ drying equipment was an other problem that extra Soyflour equipment could answer. Two soy-bean driers were right in line with the germ driers and needed only a few conveyor changes to go to work on germs. Putting them into this service will also relieve a small part of the load on steam driers in the Feed House and relief there is welcome.

So bottleneck Number Two is on its way out and we'll soon have to start looking for something else to worry about.

## Federal Surplus Commodities Corp. Now Handling British Exports from U. S.

We are no longer dealing with the British Food Ministry under the quota system applied in March of 1940. After the passage of the Lend-Lease Bill the Federal Surplus Commodities Corporation took over the purchasing of starch for England under a closed bidding system and any business we receive from that source will be completely on the basis of price. It is too early to say how much effect this set up will have on our business because domestic demand is still good but we do know that it resulted in *no* British business for May.

## THE BULLETIN BOARD

To the  
New Employee -  
Start on the Right Foot  
by Working Safely

## MORE ABOUT SUBSTITUTIONS

housings as the emergency grows and—just might find that the substitutes are better than metal. But plastics won't work everywhere. The best of them have only about 6% of the strength of the toughest steels and their cost runs high. They average out about one-sixth the weight of steel.

Where plastics won't work there are other alternatives. In many cases we can go back to cast and wrought iron which are still plentiful.

The results of going backward in use of materials will be an upward trend in replacement costs and a possible lowering of quality of product. We have learned over the years what metals last longest and prevent contamination and now it appears that some of that learning will come to naught because of the war. We are in no difficulty as yet because we have accumulated a fair sized stock pile of the materials which we will need most but the shape of things to come seems to be several dozen question marks getting ready to scratch our heads.



For superior plants (cabbage, mangoes, peppers, tomatoes, sweet potatoes, etc., etc.) see our well known and justly renowned second baseman, Mr. John Galembach, at his residence in 1531 N. Clinton St.

\* \* \*

Sam Carson, Table House or 1669 N. 29th St., is willing to be almost robbed of a 1935 Plymouth 4 door sedan (with heater) by the first man who comes along with a little cash and an honest face.

\* \* \*

Mr. Henry Buckley (call 2-8416) will sell one bay riding horse and/or one single broke mare to someone who will give them a good home. Mr. Buckley also says that he can and will do first class guaranteed soldering cheap and will furnish the highest grade of sod in Macon County.

\* \* \*

Call 2-0871 for a doll buggy, 10 inch wheel tricycle and hobby horse. Will sell or trade for child's automobile with or without horn.

\* \* \*

For sale, a Hot Point Electric Range in good condition. See J. E. Robinson, Table House or 2-8249.

\* \* \*

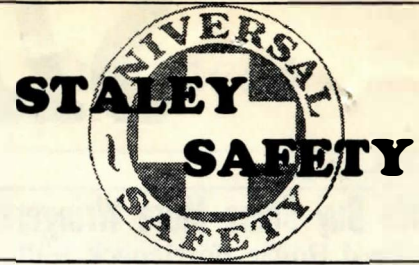
One only 7 room all modern house with 2 acres of ground, garage, barn, 2 chicken houses and several fruit trees. For sale or trade. See George Leonard.

\* \* \*

Four 5.50x17 tires one month old. For sale to the first man with \$15.00. See Jimmy Roderick, Extra Board.

\* \* \*

Charlie McLean, M & L Department, has a Hallet-Davis upright piano in A-1 condition for sale. His address: 2109 E. William. Phone, 2-2795.



Figures just released by the National Safety Council indicate that the Frequency rate of industrial injuries during 1940 climbed from 11.83 lost time injuries per million man hours worked in 1939 to 12.52. Our own frequency rate, by contrast, went from 15.40 to 14.24. The Severity rate for all industry went from 1.42 days lost per thousand man hours worked in 1939 to 1.44 in 1940. We have nothing to boast about there because we contributed to that bad record by increasing our severity rate from .19 in 1939 to 3.18 in 1940 as a result of the three bad accidents which we suffered last September.

It is worth noting that, in the midst of bombardment from the air and on the ocean, Great Britain is doubling her efforts toward industrial safety rather than slackening them. The British have realized that defense against the senseless waste of skilled workers by industrial injuries is just as important (and easier to accomplish) than defense against the enemy. The lesson for this country is obvious and there is reason to believe that we are learning it. A recent speech by J. W. McCormack, in the House of Representatives contained the following statement, "For every man day of idleness resulting from strikes in 1940 there were 4 days lost through work accidents. Strikes and lock-outs are front page news, but because accidents happen as single minor incidents the interruptions they cause are scarcely noticed. Yet in the aggregate they assume the proportions of a major tragedy far more serious than any other single threat to production schedules."

Our Safety record for the first five months of this year is better both in frequency and severity than at the same time last year but that does not mean a thing. All of our trouble last year happened in one month and the same thing can be repeated unless **YOU WORK SAFELY.**



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

## If I Were Twenty-One

By William S. Knudsen

If I were twenty-one, I would try to get work in a machine shop. If that failed, I would try for a job in a filling station, or as apprentice to an electrician or plumber. In short, I would seek to work with my hands.

Nowadays most youngsters want a college education, seemingly because they think it a step toward coveted white-collar jobs. I probably would want one too; but I wouldn't let college interfere with my education as a mechanic. Recently I talked with a group of college seniors, worried about how to get a start in life. They were puzzled when I suggested that they look for manual labor. To them, that involved a loss of prestige.

Why? Why is it that so many of our youngsters want to start their careers sitting at a desk. They aren't weak, for on the average they are healthier than we were. They aren't soft or lazy, for they will drive themselves to exhaustion on a football field. Why, then, their dread of manual labor?

In pioneer days, when book learning was rare, the man who made his living sitting at a desk was envied. But the pioneer's legitimate aspiration for learning has decayed into a kind of snobbery which considers it more honorable to handle a telephone than a wrench; more socially desirable to

dictate to a stenographer than to direct a crew of skilled mechanics.

That's not the true American tradition. George Washington was a surveyor; Thomas Jefferson a gifted designer of useful appliances; Benjamin Franklin a journeyman printer, and the best electrician of his age; Abraham Lincoln split rails, kept a store, built and worked on flatboats. That these men knew how to work with their hands undoubtedly contributed to their hard, practical sense.

In reality, there is nothing "humble" about the position of a mechanic. The place of America today, the American standard of living, depends more on the skill of our mechanics than on any other one class. The genius of America is production and many of our productive enterprises are headed by men who have come up from the worker's bench.

## MORE ABOUT WRINGERS

space for them we have extended the pressroom north across the railroad track with the north edge of the floor being supported by the south wall of the Corn Oil House. Enough space is being provided for four plate and frame presses.

When the new presses go into service the fire driers can do a much better job because the feed delivered to them will be a great deal dryer and they won't have to evaporate so much water. When that happens we will get away from the necessity of continually shovelling feed (at least until we try to push production up another notch) and the Feed House bottleneck will be gone. The job is going along nicely now and should be in service before July 1st.



Our baseball team, which had to struggle to get over the 500 mark last year (13 won—12 lost) got off to a flying start this season with two wins over the Deland Merchants.

The first game was played on May 4th and the results were: for Staley's, seven runs, ten hits and three errors, for the Deland Merchants, five runs, three hits and five errors. We used three pitchers with Doolen going three innings, Farrington two and two-thirds and Hilberling three and one-third. Doolen struck out four men and Farrington and Hilberling each got three. Cathcart was the receiver. Dick Hopkins (of the baseball minded Hopkins brothers) was the leading hitter with three for five.

With this game under their belt the boys really got enthusiastic and had fun playing the same team twelve days later. The results: for Staley's, 9 R, 9 H, 3 E and for Deland 1, 3 and 4. Hilberling struck out six in the five innings he worked and Doolen got three in four innings. Cathcart caught. Dave Hopkins (same family) got three hits out of four trips and scored four runs.

After two games it is apparent that a vastly improved team will represent the Staley Fellowship Club in 1941. Newcomers are Jim Farrington, Bob Cathcart, Harvey Logue and Dave and Bob Hopkins. The club will be younger and faster.

The next clash is scheduled for Sunday, June 8th at Staley Field. The time is 2:00 P. M., the bleachers are ready and you'll see some good baseball so come on out and watch the boys perform.

The Softball team is just getting organized but we'll have some news for you on its performance by next issue.

## SAFETY PAYS

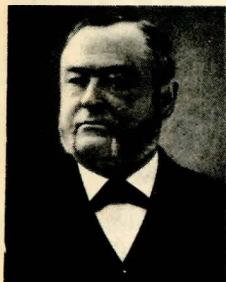


Since we advertise that we have a 50,000 bushel corn plant you may wonder who is kidding who when you occasionally hear that we have ground 52,000 bushels in a day. Probably no one is.

When we say 50,000 bushels we mean 50,000 standard bushels and a standard bushel, as our Laboratory understands it, is a bushel of No. 2 yellow corn at 15% moisture. You can readily see that a bushel of corn at 18% moisture doesn't contain as much dry material as a bushel at 12% and if the Laboratory attempted to keep their yield records without taking account of moisture content, the apparent yields would vary so widely that there would be no accurate way to check losses. So—we can grind 51,829 bushels of 18% moisture corn, or 48,295 bushels of 12% corn, or 50,000 bushels of 15% corn and arrive at the same total of 2,380,000 pounds of dry material for the day's run.



# Squeeze Play in the Oil Business



In the second year of Franklin Pierce's administration a Yankee tinsmith named V. D. Anderson moved from Connecticut to Wisconsin and set up

his shop. He soon invented a small boiler for cooking cattle feed and when this "Farm Steamer" proved popular he bought a plant in Kewanee to manufacture it. Four years later he moved to Springfield, Ohio (leaving the firm which became Kewanee Boiler Co.) and developed a water tube boiler which attracted attention at the Philadelphia Centenary in 1876. He also began building rendering tanks for the country butchers who supplied most of the meat in those days.

By Chester Arthur's time in the White House the large packing companies were taking over the meat business and clamoring for equipment. Anderson got into this field by inventing a continuous drier which dried tankage into fertilizer.

But he wasn't satisfied. Free water and grease had to be pressed out of the tankage before it was ready for his drier and he wanted a continuous press. He experimented with various types and found one that would work if a satisfactory means of feeding it could be devised. In working out the feeder, which used the same screw principle as a meat grinder or screw conveyor, he hit upon the idea of the EXPELLER and that turned out to be more important than either the drier or the press. He obtained several patents on it between 1900 and 1910.

The fundamental idea of the EXPELLER was the fact that it employed a series of screws mounted on a shaft (like a bolt with threads stripped off at intervals). This caused material fed forward by the screws to build up tons of pressure at the points where the screws were missing. By surrounding the shaft with a barrel of tough steel bars parallel to it and spaced very closely, any moisture or oil in the material is squeezed out between the bars. The material itself can't get out that way and is pushed forward until it is ejected at the end of the barrel in the form of dry cake.

As soon as the EXPELLER proved itself in the packing houses it went to work in our industry pressing the water from corn germs. A larger and stronger machine, known as the No. 1, was soon in service pressing out various kinds of edible oils all over the world. The first World War saw tremendous activity in the EXPELLER business because large numbers of them were shipped to the Philippines and other countries to press out coconut oil as a source of glycerine for the manufacture of explosives. At one time the capacity of the Anderson plant was strained to the extent that orders were taken for delivery some two years later.

The evolution of the EXPELLER can be traced in our plant. Soon after they were placed on the market we had them in the Mill and Feed Houses to press water out of grits and germs and in the Oil House to express oil. They are still there. In the late 1920's, when we were getting serious about the soybean, the R B (means roller bearings, doubled capacity and various improvements) was introduced and we grabbed it. The next step, in 1933, was the DUO in which the vertical hopper feeder was strengthened and provided with a worm shaft and vertical barrel so that the machine was practically two EXPELLERS in one. THE SUPER-DUO (1936-38) was stronger and faster and (1940) equipped with an oil cooling system which increased oil yield and improved quality of

both oil and meal by keeping the barrel at even temperature. All types are operating in our plant.

It is interesting to note that Greenwood & Batley of England, Krupp of Germany and Olier of France were licensed to use the Anderson patents between 1910 and 1920 and that the machines which they manufacture today are still basically the same as the old No. 1 whose manufacture Anderson discontinued long ago in favor of better types.

In our plant we think of the EXPELLER primarily as a machine for expressing corn and soybean oil but you don't really get an idea of its usefulness until you realize that a partial list of its uses includes pressing almonds, apricot kernels, bone, castor beans, cocoa beans, copra (useful in wartime as a source of glycerine for explosives), cotton seed, grape seed, hemp seed, jaboty nuts, lard cracklings, linseed, palm kernels, peanuts, pyrethum, raisin seed, sunflower seeds, tung nuts, and wa.nuts with shells.

We owe a debt of gratitude to V. D. Anderson, Yankee mechanic and inventor extraordinary, who provided us with one of the tools that has made American industry the best in the world.

He was a pioneer, like A. E. Staley, and the tribute he would probably appreciate most is that he did an excellent job, built a machine that was badly needed, built a machine that really worked.

