

# STALEY NEWS

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## SALES SITUATION LARGELY UNCHANGED

The sales department has a new job every day. Market prices of raw materials and finished products have changed overnight. Deals that looked good yesterday are sour today. The fellow who wouldn't buy at any price yesterday is waiting on the doorstep to buy at your price: or vice versa.

With the exception of those constant minor fluctuations our sales picture is largely unchanged from last month. Industrial sales still play the hero's role and the little yellow soybean, who can't make up his mind what to sell for, remains the villain of the piece.

### *Industrial Sales Above Average*

Industrial sales are not at the level they attained during October and November of last year but no one expected them to be. A year ago the war was still scaring the wits out of the American housewife, who feared rationing, and the retailer, who was caught in a dangerous situation. Orders for goods of all kinds came in at a terrific clip: one not to be matched in calmer times.

Even so our industrial sales remain above average because of the defense program and the heightened industrial activity which it has caused in the whole country. Sales to the brewing industry are seasonally down but should pick up in February. The only really sour note in the industrial sales picture is, paradoxically enough, the confectionery business. We are suffering there, along with all the other corn processors, because the price of cane sugar is so low that candy manufacturers are using only the necessary minimum amount of corn syrup in their product. Recovery of this business will wait on a recovery in cane sugar prices.

### *Oil Sales Good*

Even in the face of the nervous soybean market our oil sales have been good. The recent break in the price of beans has damaged the price a bit but the demand for immediate delivery of refined oil

is good enough to keep our refinery going along at about 80% of capacity and the demand for crude soybean oil is still strong.

Refined oil in packages for the retail market is slowly sliding out of our line of products. We quit pushing it two years ago because a change in the cooking habits of the country's housewives cut the volume and took the profit out of it. Until recent years the family cook purchased materials (including our salad oil) and made her own salad dressing and mayonnaise. The "ready-made" products tasted ready made and her family didn't like them. But finally her industrial competition began to get tough. Now they are selling such a high quality product for such a low price that they have literally put mother out of business. Any tears we might be inclined to shed for her plight, however, and our own loss of package sales, would be strictly crocodile. We're now selling the oil she used to buy to the folks who put her out of business. She seems happy about the whole thing too.

### *Package Volume Good—Prices Down*

Our volume of package sales is as good as it should be at this time of the year but our customers are enjoying the prices more than we are. A couple of our competitors have gotten themselves into an argument concerning which should sell the most package goods and to whom. We weren't mad at anybody but we had to get into the fight to stay in the business. Manufacturing costs are the most potent weapons and shields in competition and the fellow who comes out of this fight with the fewest bruises will be the one whose costs were lowest.

### *Export Slips Again*

Our export market, which had already been cut to 60% of 60% by the British quota system, slipped again when the English failed to take their November allotment or any part of it. The

December allotment is already booked, however.

The scream of bombs came very close to Decatur last week. A letter, written in long hand, was received from L. C. Ambrose, who is temporarily in charge of our London office. It said that the homes of three Staley employees there had been bombed but that all of them were continuing on the job. We wish them luck to go with British nerve.

### *The Flight of the Soybean*

As recorded in earlier issues, the soybean has brought us something less than happiness this fall. We wouldn't mind if beans sold for \$2.00 a bushel if we could sell meal for a price that would cover it but we can't. Cottonseed and linseed meal have kept our selling price down while the price of beans stays up. Because most of the linseed meal is produced along the Atlantic seaboard, Painesville has suffered more than Decatur from this situation. A recent break on the bean market hasn't helped much because the price has recovered and our customers, even though their stocks are low, are afraid to buy and be caught on a falling market. Indications are that the price will probably break sharply at some time in the future. Our situation will not be relieved until it does.

Our forecast last month of a \$250,000.00 quarter still seems logical. If we were making money on soybeans, or breaking even, our profit for the quarter would be considerably better than that. If we go below that figure be prepared to blame the little yellow bean. It has made us happy in years gone by, and probably will again, but this year it is a disappointment. It is in this kind of situation that we get the benefit of our diversified plant, built with the profits of earlier years. A wide range of products gives us a chance to make money out of our total activity even when one of our branches goes wrong.

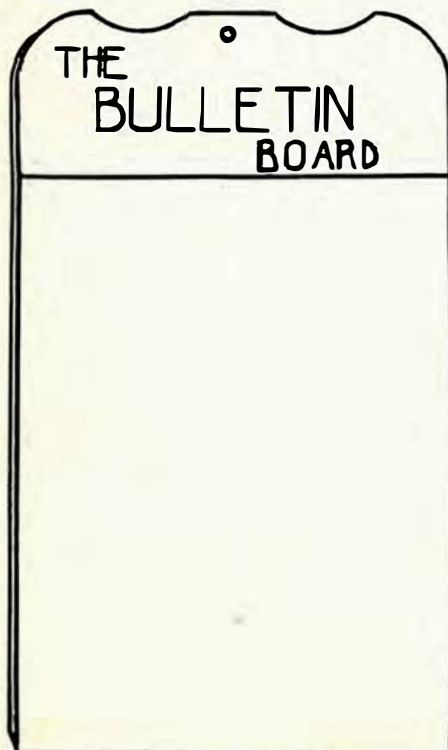


## HELP WANTED FOR A BIG CHRISTMAS JOB

The Handicraft Club is looking for toys and games with some play left in them. Or even toys that have had most of the play knocked out of them and the new worn off. Nails and bolts and springs will restore the fun they were built for and paint will put the new back on. Because of them someone who didn't expect to have much to laugh about this Christmas will have plenty.

In the last two years the Club has repaired a total of about 300 toys for Christmas. So far this year it has received only about 40 toys and 12 games. More are needed. If you have toys to give call John Anderson or see Harry Blades. They will have them picked up and delivered to the Handicraft shop.

Even if you haven't any old toys to contribute there is still a chance for you to get in on the fun there is to be had from this job. The Fellowship Club is furnishing paint and repair parts but hands are needed to put them on. The Handicraft Shop is open from 7:00 to 10:00 p. m. on Mondays, Wednesdays and Thursdays and they can use your help. Repairs are just starting and no painting has been done yet. Come on over and get on the job.



## IS YOUR WATER SUPPLY SAFE?

Many Staley people are dependent upon wells for their water supply. Being prudent folk a number of them have, at one time or another, requested our laboratory to make sanitary analyses of samples of water from their wells.

The laboratory has hesitated to accept this responsibility for several reasons. In the first place it does not specialize in this type of work. Second, certification of a water supply as safe depends upon more than the testing of one sample. Third, the Division of Sanitary Engineering of the Department of Public Health at Springfield is completely staffed and equipped to deal expertly with this problem at no cost to you other than postage.

If you are dependent upon a well for your water supply we suggest that you write to the Director of Public Health at Springfield. Your letter will bring a questionnaire asking for information on the location and construction of your well and a bulletin giving complete information on the subject of sanitary water supplies. If you will fill out and return this questionnaire with 10c in stamps (to cover the cost of sending you a sample container) the state will analyze your water supply and give you much more complete information about it than you could hope to get from us.

## RULES DE LA DANSE

For the better regulation of dances sponsored by the Fellowship Club and to avoid misunderstanding, the Social Committee has drawn up the following rules pertaining to admittance:

1. Single members are allowed one guest of the opposite sex.
2. Dependent children of members will be admitted provided they are accompanied by their parents.
3. Non-dependent children will be admitted upon payment of the regular guest fee.
4. Membership cards are not transferable. The doorman will pick up any misused cards.
5. Members must present membership card for admittance or be identified by friends.
6. Guest tickets must be purchased from the committee member in charge of the door.



By Harry Walmsley  
Assistant Plant Superintendent

Safety is not an obligation which rests on you merely while you are at work. It is a duty that no one can shirk at work, on the street or at home. Only by remembering this fact twenty-four hours a day can we hope to eliminate accidents.

Here are a few of the things you should remember about safety while you are away from the plant.

Drive carefully to and from work.

Use a step ladder instead of a crate or chair when working around the house.

Walk, don't run, on stairways and be especially careful when your shoes are wet. Be sure that your basement stair is protected with a handrail.

Make sure that the tools you use around the house are sharp and in good condition. Bad tools can cause accidents as easily at home as in the plant. Be careful of gas connections; a leak can cause fire or asphyxiation.

For the kiddies: don't let them put out bottles for the milkman, they may fall on the bottles and be cut. Keep poisons and dangerous medicines safely out of their way. Don't let them play with matches. Teach them safety as one of the skills they will need to get and keep a job.

During this season of the year it is especially important that we remember about the danger of carbon monoxide poisoning. Be sure that your garage doors are open while you are running your motor. Carbon monoxide slips up on you without any warning.

More safety at home will mean more safety on the job.

We are pushing safety not merely to make a good record but to keep you and me and all of us in one piece so that we may continue to provide for our families.

Safety is a twenty-four hour job.



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For The Employees Of  
**THE A. E. STALEY  
MANUFACTURING COMPANY**  
DECATUR, ILLINOIS

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## WE LOOK BACK FOR THE PRICE

In previous issues of the News we have discussed the reasons for our Workmen's Compensation Act, the reasons for employers wishing to insure their liability under the Act, and the operation of the "experience rating" plan. This article is the last of the series on compensation and its insurance, and it discusses the retrospective rating plan which we adopted on July 1, 1938, because we believed that it would give us a better control over our losses and the handling of claims.

Because the retrospective rating plan for workmen's compensation insurance (retrospective means, literally, "looking back") developed out of experience rating, that is still its starting point. From the assured company's experience (their ratio of losses to premiums paid) for the past several years, a fair average of standard premium is computed.

For the purpose of illustration, let's imagine that their premium rate figures out to \$1.00 per \$100.00 of payroll. Under experience rating this premium rate would be paid for the entire year, no matter what the actual loss during the year amounted to.

Under retrospective rating \$1.00 becomes merely the base rate, and the assured company agrees, in effect, to pay its own losses within a certain minimum and maximum. The minimum is usually about 75% of the base rate and the maximum about 125%. This means that if actual losses, plus the percentage necessary to pay the insurance company for the work it does, figures out to a premium rate of 75c or less, the assured company will pay a premium rate of 75c rather than \$1.00 per \$100.00 of payroll. It also means that if the losses come to a rate of \$1.25

or more, the assured company will pay only \$1.25. Any figure between 75c and \$1.25 will be exactly the rate paid.

Because this plan is based on experience rating, the base rate (\$1.00 in this case) is subject to change from year to year. If an assured company was under its minimum rate for several years, the base rate would be decreased.

The effect of this plan on the assured company which uses it is the same as the effect of the experience rating plan except that it brings the subject of accident prevention even closer home.

The assured company does not know exactly what premium rate it will pay until some time after the policy year is finished, but it does know that it has a chance for a 25% saving if accidents are reduced to a minimum. It also knows that, if they are not controlled, it will lose 25% more than the standard rate. Realization of those facts keep it alert to safety.

Your company employs this plan because it affords an opportunity to save money; because that saving, like any other, puts it in a better position to get and keep business; because it realizes that anything which helps the company must help its employees and because it has confidence in the ability of its employees to reduce accidents to the point where compensation insurance premiums will be a negligible item of expense.

That, by the way, can be done. During the insurance year of 1938-39 and 1939-40 we were able to make a saving by using the retrospective rating plan. During the current year we have had some bad experience and our costs will be high, but we are confident that our continued efforts toward safety will reduce them again and bring us not only the health and security we have learned to expect from Safety, but a financial reward as well.

## DON'T FALL FOR ANYTHING

During the winter months our worst injuries are those caused by falls. Be prepared to distrust the stairs, the ladders and the walks you have used all summer. Change your walking habits to suit the season. Don't fall for anything.

## CHRISTMAS PARTY NEEDS TALENT

Last year the Social Committee of the Fellowship Club put on a Christmas party for Staley children that went down in history as the best ever. All the committee has in mind for this year is to put on a party so good that last year's will look bad by comparison.

Under the leadership of Homer Chastain, who is Production Manager for the party, a small amount of excellent entertaining talent has already been lined up. But more are needed. The committee is looking for singers, dancers, comedians and novelty acts of all kinds. If you have a suspicion that your boy or girl would fit in please call Miss Ruth Cade or John Anderson and arrange for a try-out.

But don't wait. The show is being assembled now and the deadline for entries is December 5th. Rehearsals start right after that date. There won't be time to train any performers in routines they don't already have letter perfect. We want trained talent and acts that only need to be fitted into the production. Let's hear from you.



A used Westinghouse Porcelain DeLuxe Refrigerator, good condition. Call Mrs. Urfer at 2-7047.

Expert fall plowing, excavating, grading and lawn seeding. Call Mr. Henry Buckley at 870-R. 5.

Kimball Upright Piano, will sell for \$20.00 or trade for fat hog. Call Second Baseman John Galembach at 6473.

A General Electric stove and refrigerator and an Easy Washing Machine, all in beautiful condition, are offered by Mont Leaser at 2025 E. Main St.

Call Mark Ackerman for information on new and used band instruments.

Wanted, one talented Staley musician to play bass drum. The band has recently acquired a good bass drum and needs a drummer. If you are 15 summers old (or older), have had two years of piano study, will rehearse once a week and think you would like to try the drum call Mark Ackerman for a tryout. Females preferred on account we would like to increase the feminine membership of our band.



## *It Boils Down Like This*

Any of us will admit that our eleven vacuum pans are important pieces of equipment in our process. Their very size seems to indicate that. Just what their job is, however, remains a mystery to most of us. There aren't any moving parts and everything happens inside of pipes or inside the cast iron shell of the pan itself. What is their job? What do we get out of those hunks of heavy cast iron and the copper tubes inside?

Well, briefly, they act as wringers. Water which has been used for steeping corn contains materials which are valuable when added to our feed but which can't be added while they are dissolved in a large amount of water. Problem: How to get rid of the water.

After starch has been converted into glucose the glucose is good enough but it contains a great deal of water. The water would have to be boiled out by the consumer before he could use the glucose and might cause it to ferment and spoil. Problem: How to get rid of the water.

The answer to both is the same. Boil it out in vacuum pans.

Everyone who has made fudge knows that it is thickened by cooking and that knowledge has long been used in the sugar industry. In 1813 an Englishman named Howard reasoned that, since water would boil at a temperature lower than 212° on a mountain top where atmospheric pressure was lower, it might be possible to boil syrup down with less heat if the atmospheric pressure was reduced. But mountain tops weren't always available, especially in England. The next best thing was a closed vessel from which part of the air had been withdrawn. He devised and patented such a vessel and called it a "vacuum pan". In it syrup could be boiled down at a temperature of about 180° Fahrenheit.

The new method had several advantages over open pan boiling. It was faster. It used low pressure steam and was more economical. Materials which might be damaged by exposure to high temperatures could be evaporated safely now that the boiling point was reduced.

Howard's vacuum pan became popular in England and America but European processors were slow to adopt it.

In theory the construction and operation of the vacuum pan is simple. The bottom is merely a cast iron bowl. Immediately above it is a steam chest filled with vertical tubes. The liquid to be evaporated sprays in above the steam chest and falls down through a large space in the center. Steam, introduced from an outside source, fills the space in the steam chest around the tubes. The liquor inside the tubes is heated by the steam around them. The degree of vacuum in the pan determines the boiling point and as the liquor reaches the boiling point it gives up its water in the form of steam or vapor.

The vapor rises into a tall vapor chamber and is led into a "catch-all" where a series of cunningly arranged baffle plates catch any valuable liquor (glucose, for example) and return it, through piping, to the pan. The vapor itself goes through the catch-all and into a condenser which cools it and turns it back to water. The water falls into a vertical pipe called the down leg and pulls some air with it. This action, by constantly pulling air out of the pan, helps to maintain the vacuum. As a matter of fact, if the pan were high enough in the air, the pan might be operated entirely without a vacuum pump by depending on the down leg to create the vacuum.

As the material boils the operator takes samples until the specific gravity indicates that it has reached the right concentration. He then stops the evaporation and drains the liquor out of the pan.

The description above is of a single effect pan, which we use when the liquor is to be concentrated to an exact point. With the exception of minor improvements dictated by experience, it is pretty much the same pan that Howard invented 127 years ago. But a process is never quite good enough. Eleven years after Howard invented his pan a French sugar processor in New Orleans was writing, "Under certain circumstances we

may make use of a part of the latent heat of the vapor which is disengaged (from the liquor being boiled), to heat liquids contained in other boilers and produce in them a gentle evaporation." The Frenchman, M. Peclet by name, had a start on the idea of multiple effect pans but didn't see the possibilities of applying vacuum to subsequent effects of the pan. In 1843, Rillieux, who had worked with Peclet for years, did see it and patented the multiple effect pan.

In a single effect pan one pound of steam will evaporate one pound of water vapor from the liquor being boiled down. The importance of the multiple effect pan is easily seen when you realize that this pound of water vapor (actually steam) goes into the steam chest of the next effect and evaporates another pound of water from the liquor there. So in a triple pan one pound of steam does the work of three. Theoretically, there would be no limit to the number of effects but in practice there is some loss of heat in each effect and three is near the limit of practical efficiency.

In triple pans about one fourth of a perfect vacuum is applied to the first effect and the boiling point is reduced to 190°. The second effect has about half the maximum vacuum and its boiling point is around 170°. The third effect has the maximum amount of vacuum, boils at 140°. The purpose of varying the amount of vacuum is to compensate for heat loss from one effect to the next. Liquor moves from one effect to the next in a continuous stream regulated by valves controlling the flow of vacuum and liquor between them. A light liquor goes into the first effect and a heavy concentrated liquor is withdrawn from the last. The water which is boiled off returns to Lake Decatur through our hot water ditch.

Those hunks of heavy cast iron pay their way. In the Feed House they save money by preventing waste. In the Refinery they control the purity of our product.