A large proportion of the information that is presented in technical journals of all classes is presented in news form, and rarely without the dressing up that makes it more readable and interesting. The bald, give-it-to-'em straight idea about writing information about technical methods or developments has long since given way to the make-'em-like-it-and-read-it idea, employing the values that are inherent in the news form. Of course, information must not be dressed up so that it cannot be recognized; its guise may be altogether too fancy. But common sense will guide the writer against any such error just as common sense will tell him that information should be presented interestingly. After all, the purpose of writing is to get a reading for the thing written, and the news form is a first class means to that end.

A short information article may be written either as a straight news story, dealing with a simple subject or one phase of the subject, or as an experience story. It differs from the feature article in several respects, as will appear in the chapter on that subject, but principally in its length; it is shorter.

To illustrate, let us assume that a writer wants to inform his readers that it isn’t necessary to throw away expensive hatching eggs cracked in shipment and to advise them how to save the eggs and use them for hatching. He might tell the story in this manner:

CRACKED EGGS MAY BE HATCHED

Poultrymen who have been discarding fancy and expensive hatching eggs because they were checked or cracked in shipment may avoid both their grief and their losses from this cause. The eggs may be "salvaged" and used successfully for hatching, unless they are badly injured.

All that the poultryman needs to do when he receives such eggs is to perform
a little skillful patching, and he can put them under the old hen or in the incubator along with the perfectly sound eggs. They will produce chicks as well as the undamaged eggs, and he will not be able to tell the difference between the fluffy youngsters.

When damaged eggs are found in a shipment, set them aside for careful examination. If the skin under the shell is broken, of course the egg is useless for hatching. But if the skin is unbroken, the egg can be saved, even though the cracks and checks may spread over an area as large as a quarter. Cover the cracks with a thin coating of glue—any good glue will do if it is not applied too thickly—and it will give the cracked area the necessary toughness to stand the hatching process. The glue must be allowed to dry thoroughly before the egg is put into the incubator.

If the cracks cover as much as half of the egg's surface, it probably is too badly damaged to be salvaged. If the egg is to be put under a hen, the larger the damaged area, the less the chances for its hatching.

Or he may have in hand, or he may secure, an experience which illustrates or exemplifies the information, and then he may present his material in some such form as this:

**MRS. JOHNSON PATCHES CRACKED HATCHING EGGS WITH GLUE**

When Mrs. Tom Johnson of Jones County began buying expensive hatching eggs for improving her farm flock, she found that quite regularly some of them were cracked on arrival, even though they had been carefully packed. Just as regularly she discarded them, taking a considerable loss, but finally she determined on an experiment to see whether or not they might be hatched in spite of their cracks, and the experiment worked. It worked not only once, but again and again.

"My experiment was quite simple," says Mrs. Johnson. "I merely glued up the cracks. That sounds too simple to be good, but the chicks that come out of the eggs prove that the scheme is all right, and it saves me a good bit of money, as well as disappointment."

When Mrs. Johnson finds checked or cracked eggs in a shipment, she rejects only those whose skin under the shell is broken, or those that are cracked over more than half of the egg. She prepares glue in the usual way and applies a thin coating over the cracked surface. That seals the cracks and provides a sort of substitute or extra shell which is tough and elastic and will stand handling practically as well as the sound shells. She uses an incubator for her hatching, which makes it more certain that the eggs will hatch. She says that if she were putting the eggs under a hen she would be more particular to reject the eggs that have large cracked areas. She adds that she has not lost a single fertile egg on account of cracks which she patched with glue.

In the first instance the writer used a straight information story,
in the second, an experience story, or as they are sometimes called, a news-information story and a news-experience story. Let us examine each in a little more detail.

The news-information story: As one reads the first example it gives an impression of being a news story, and it has increased interest because of that fact. It gives that impression partly for the reason that its information has a measure of news value, but more for the reason that it has been cast in typical news form with the intent of making it read like news.

If only the information in this instance be considered, it has about as little news quality as most stock information in agriculture, such as good practice in plowing, in handling hay, and the like. It bears no evidence of being new or recent; it is of more or less importance as is most information of this sort; it has no particular quality of nearness; it is somewhat unusual; it lacks in human interest; if published just in advance of the hatching season, it would be seasonable. It is only information, no more nor less, like the vast quantity of other information of all sorts that is available for publication and is often deserving of publication.

But the information is written in news form. It has a typical big-fact lead, and an effort has been made throughout to simulate news development and presentation. It follows the suggestions for news writing contained in preceding chapters. It might be written with any of the other types of leads, or it might be developed in any of the ways of news story construction.

Information stories of this sort have a place in journalism. But usually it is possible to link up some happening, some name, some bit of human interest, or some unusual fact with such material, as was done in the second version of the facts, and thus give the story greater interest and increased value. If information must be presented merely as information, let it be important and useful and seasonable or timely and exercise all possible ingenuity in giving it news structure. Apply the suggestions for writing news which have already been fully dealt with. That is about all that can be said or done.

A man or woman who is a recognized authority can give advice, and it will be accepted in good part by those who read. An ex-
periment station authority can say that a certain ration is good for fattening hogs. An experienced engineer can give advice on bridge construction. An authority on foods can state the correct temperatures for cooking meats. The reader will read their say-so, partly because the information appears to be authoritative and partly because there is news value in the statements of a person of distinction.

But there are other people who are not in quite the same position. County agents, home demonstration agents, field service workers, and others have sometimes had to learn this by sad experience. The journalism student who wishes to write an article for a magazine may know thoroughly the subject matter of which he wishes to write. But readers do not want advice from the young, inexperienced, or unknown writer. It is also a human trait to want to hear news. So it is good writing policy to put information in news form, rather than as advice.

The news-experience story: As one reads the second example story given above one feels that it is a news story—and it is. It carries the same technical information, and it has the same primary purpose to instruct or advise as the first example, but it has nearly all of the news characteristics that the first example does not have. It is not only written in news form, but its subject matter has the nature of news—at least within its field. This second example is correspondingly interesting; it is the kind of “stuff” that the editor likes to get for his journal; it is the kind of “stuff” that writers may find everywhere about them and for which they will have a reasonably ready market. Such stories may sometimes even carry information about practices and methods that are old, for when that information is linked up with entirely new persons and new circumstances, it renews its youth and becomes news over again.

The news-experience story example lacks in recency—at least it gives no evidence of having happened very recently. That is likely to be the case with most stories of this type. However, recency is not so important a quality in the publication of the experience story in the farm or home journal or other technical or class journals as it is in the case of the straight news story in
the daily or weekly newspaper. But newness is important, and the story evidently has that quality; that is, the particular experience of the particular individual has probably not been published before. The example has the quality of importance; it may or may not be near to the place of publication in a geographical sense, but it is "near" in the sense that it is close to the interests of the readers of almost any farm journal. The example apparently has the quality of unusualness, partly inherent in the facts and partly due to the new circumstances. It has human interest—that is inherent in almost every experience story. It may be given the quality of seasonableness if offered for publication at the right time. In short, the second example bears most of the earmarks of a good story.

What was said in a previous paragraph about old information taking on news value when presented as the experiences of new persons under new circumstances must not be taken to mean that the information carried can be ordinary or common. Ordinarily, common information is not important. Information about the ordinary methods of storing vegetables, or the ordinary methods of canning is not likely to be acceptable to editor or reader, no matter how well "dressed up" in writing. There must be some measure of newness or unusualness in the facts as well as in the circumstances of the experience. There is not likely to be a worthwhile experience story in a farm woman's marketing of eggs at the country store, but if she ships her quality eggs to a dealer in Chicago, or to a select lot of customers nearby, thereby getting a premium price and a bigger profit than anybody else in her community, that would make a good experience story. The average poultrywoman does not do this.

**Finding material for experience stories:** Experience stories must come out of the experience of the writer, or of some other person.

If the writer is a farmer, a homemaker, an engineer, a research worker, an extension specialist; or engaged in some business, industry, or profession; or has some hobby, as photography or flower growing—then the best possible material may be found in his or her own experience. The most valuable experience story is usually
written out of the writer's own work and knowledge. It carries an air of reality that no other story can duplicate. A journalism student who wishes to write for publication can find no better way to begin as a writer than with experience stories of his own.

A home economics student who for several years had baked angel food cakes and sold them, wrote a story about how to bake such cakes. A horticulture student wrote on how apple thinning had paid as practiced in the home orchard. An engineering student prepared a manuscript on a system of drying hybrid seed corn with forced air circulation which he had installed on his father's farm. These three stories were written as assignments in a class in technical journalism. All were bought and later published by magazines of national circulation.

A teacher of vocational agriculture who had helped a dairyman plan an unusual type of dairy barn later took a picture of the building and wrote a story. A dietician in a hospital wrote a short article for a household magazine on how she cooks game. An engineer on a big construction job wrote an article for an engineering magazine on some unusual features of this work. These articles were accepted and published.

But after while, the well of the writer's own experience may go dry. If he is to continue at writing, the second method of finding material for this type of article must be utilized. This is to draw on the experiences of others. In other words, you become a reporter. You go looking for news or, more specifically, for news-experience story material.

Such material is to be found everywhere. On a college campus it is found in extension activities, in research work in laboratories, in reports from cost test associations and cost account records. It may be dug out of reports of county agents on file or out of annual reports made by teachers of vocational agriculture or home economics. Away from the campus, ideas and material can be found in practically any community.

All you have to do is to hunt for experience material, as was learned by a young college instructor who had for several years tried his hand at other types of stories with indifferent success. Most of the manuscripts that he sent to the farm magazines came
back promptly, largely because they dealt with things more or less remote from the farm and its life.

Going back to his old home farming community for his vacation one summer, he determined to try his hand at actual farm reporting—gathering experience stories. So he borrowed his father's flivver and set out around the neighborhood, stopping at farms wherever he thought that he might find something of interest.

When he came to write his articles he told of one farmer's experience with lamb-raising; of another's convenient hog house; of another's success with sowing rye in shock rows; of discing wheat before sowing clover seed; of a boy's money-making with a Jersey calf; of a concrete hog wallow; and similar things. These were all experience stories, with the name of the farmer linked up with each and a picture with nearly every one. They were written concisely in news style. Practically every one was sold. One leading farm journal liked these short experience stories so well that the editor soon after gave the young man an assignment to get a longer feature article.

Knowing that a certain farm journal was in need of short experience articles about farm buildings, a young man who wrote occasionally for publication took his car and made a short trip across country to pick up a notebook full of experience stories. As a result of this trip he wrote and sold short articles, with and without pictures or drawings, about a handy catch for holding up windows in poultry houses, about a comparison between two different types of hog houses on adjoining farms, on a new type of poultry house, on a cheap hog shade, on a handy and safe bull pen, on grinding feed with tractor power, on packing bees for winter, about a stock loader on wheels, on a farm hospital for livestock, and on a crib and granary combined.

A staff reporter for a rural magazine of national circulation relates how he found good stories wherever he went. For instance, on the Eastern Shore of Maryland he found a grower of sweet potatoes who was getting a premium price by washing his potatoes with a large machine that he built in his packing house. In Mississippi, a county agent gave him the facts about increasing crops by use of a new by-product fertilizer. A Utah farmer stepped up
barley yields by growing a new variety originated at the state agricultural experiment station.

In eastern New Mexico, this reporter found a farmer who stacked field-chopped alfalfa in long parallel ricks in the center of his feed lot, lined the space between with heavy paper, and used this space for storing his corn silage. Out in Yuma, Arizona, it was a large grower of cantaloupes who told him of the development of a new variety which would ripen early in the field and stand shipping to distant markets. Successful feeding of pea-vine silage to beef cattle was the story related to him by a Montana farmer.

A dozen other states furnished notes for many other experience articles of value.

Equally fertile is the field of experience material for the writer of articles of special interest to women. Every well-conducted household will provide some new wrinkle for saving time in homemaking, planning meals and preparing them to fit nutrition requirements, managing a budget, dealing with child rearing, youth problems, community recreation enterprises, and scores of other experiences that make information news.

A young engineer on a highway building crew saw some new ideas in mixing concrete and getting it onto the job several miles away; his contractor boss developed a method of curing the mixture after it was in place that saved time and money without reducing the quality of the job. There was a good story in each experience. Likewise, the observing, inquisitive technical man in any field of engineering may find good material for stories. And not merely stories out of his own particular line of work, but out of incidental experiences. A college teacher who often writes magazine articles on the side, based on professional information, took a vacation in the north woods to get away from his work. He caught a big bass and had his wife take a picture of him holding the bass. He had an interesting adventure in capturing it. When he got home, he wrote a story on bass fishing which sold promptly to an outdoors magazine.

Ideas for stories come from being on the lookout for them as you travel along the road, as you visit farms or homes or construction jobs or factories. You hear of them at meetings. You
learn of them by inquiry from people who are in touch with things. Many a tip for them can be found in the newspapers you read. A perusal of bulletins and circulars put out by colleges and government agencies often suggests stories.

Another way, and one of the best of all, to get suggestions on what to write is to examine a number of journals to which you would like to contribute to see just what they are publishing. Two or three hours of careful study will be ample to provide you with an abundance of ideas for stories. But, of course, such study is merely preparation for an observing visit to places where worthwhile things are being done.

In addition, it may be said that the earlier discussions of news gathering methods are directly applicable to the gathering of experience material, for experiences are news.

Writing the news-experience story: If the news-experience story is based on an experience of the writer, it is usually best written as such an experience and in the first person. When so written it takes on qualities that make it desirable to the editor because his readers like these qualities in a story—the qualities of informality, of personality, of reality, of human interest, and so on. But even so, the personal experience story is usually best written in news story form. You will find it best to choose your lead and write it as you would an ordinary news story lead; you will find it best to write the body of the story as you would construct a news story.

If the experience story deals with the experience of others, then by all means cast it in the form of the news story.

In either case the material is news, looking at it from the standpoint of the journal and its readers, and the suggestions made in previous chapters on news writing have full application.

However, a few special suggestions may be profitable. Tell your story plainly. What Shakespeare said of a tale speeding best when plainly told fits the experience story; the readers are not so much interested in the style as in the information, although style should not be neglected; every manuscript ought to be workmanlike. Let your story be like Abraham Lincoln's famous legs, which he said were just long enough to reach the ground. The length will vary
from a paragraph to several paragraphs or a half column or more, but never should it be longer than enough to tell what the reader wants to know; again, the reader is most interested in the information presented. If the story gives instruction for making or building something, be very explicit as to directions, measurements, materials, and the like. Make clear early in the story whether it is a personal experience or not, and if not, tell promptly whose experience it is and give names, places, and other information adequately so that the reader may know that the experience is worthwhile. It is desirable to give the story a title and the sprightlier, more suggestive it is, the better.

Perhaps a bigger story: Many of these news-experience stories have in them also the elements for a longer article—a feature story. All that is necessary is to secure additional material, along with several photographs. A writer who begins his writing experience with these short articles will soon find that he can go on to the longer, more important ones.

Some examples: A few examples of the news-experience story will illustrate better than further discussion, just what this type of story is and how it is written. Those given here have been selected from a number of publications in different fields. Some were illustrated with photographs. The journalism student should go on to examine still other publications.

CANADA THISTLES

Neighbors talked behind their hands six years ago when H. E. Ball went to an auction in Henry County, Indiana, and bought a farm for $40 an acre. A 42-acre field on the farm was so completely overrun with Canada thistle that it hadn’t grown crops for several years.

But Mr. Ball fooled ’em. He knew what to do with Canada thistle. He plowed the field in July and started cultivating it at ten-day intervals with a duckfoot cultivator. The eleven-inch shovels cut the thistles off below the surface of the ground. He kept duckfooting until late fall, then started again in spring. Due to a three-week rainy spell, soil packed and thistles got a start, so he plowed again.

In June he planted corn (checked so he could cultivate both ways). He used hoes to cut thistles out of the hills. Hogs were turned in to harvest the corn in fall. His returns from corn were $56 an acre.

The following season the land was rented to a cannery for tomatoes. Only nine thistle plants were found! (Farm Journal)
WATERING HAY STACKS

Before Max Dahl, Cass County, North Dakota, moves stacks of alfalfa or sweet clover from field to hayloft or to his feed lot for immediate use, he wets them thoroughly. Late last fall, before moving a 35-ton stack of alfalfa, Dahl pumped over 1000 gallons of water into it, using a 300-gallon tank loaded on his pickup truck, a garden hose, and a small pump. The water soaked through the stack from the top and was quickly absorbed by the hay. This treatment saved the leaves, improved the color, and increased the palatability. Water absorption softened the stems and branches, and cattle ate the hay readily with very little waste. Dahl has found that with the water treatment, which may be given at any time of year, he can feed coarse hay without grinding or chopping.—Walter Hunt.—(Successful Farming)

WOMEN’S MARKET

Early last summer, 30 farm women in Atlantic County, New Jersey, started a farm women’s market, to be open every Saturday. In 15 operating days they took in over $4,500 for farm products, and because of the increasing number of regular customers, found it worth their while to keep the market open every Saturday during the fall. Carloads of shoppers stopped continually every Saturday at the market, which is about five miles out of Atlantic City on one of the heavily-traveled highways toward Philadelphia. At the end of the year, gross receipts added up to $7,500.

To get the market started, an association was organized and each woman bought a share of stock at $25 a share. The Farm Security Administration loaned money to some of the women who lacked ready cash to buy membership.

Farm women in Burlington county, New Jersey, visited this market to get tips on starting a similar market.—(Farm Journal)

WHAT TO DO WITH THOSE PHEASANTS

By Wilma Phillips Stewart

I wonder how many of you are struggling with a pheasant or two in your kitchen! Maybe the hunter in your family just sort of tossed them on the kitchen table and expected you to do the rest.

All right, but this is for those of you who are new at this “pheasant-fixing.”

You can’t tell how to prepare the pheasant until you look at the last big feather on the wing—if pointed, the bird is a young one and can be roasted; if the feather is rounded, then the bird is an old one and must be cooked by braising (addition of moisture and a covered utensil.)

Picking

If pheasants are picked right after shot, they pluck easily; otherwise scald and pluck feathers. There are some who like to skin the birds, which means that the surface of bird must be stripped with bacon or salt pork, if its age permits roasting.

Smothered Pheasant

1. Cut pieces as for frying; roll in salted flour. Saute each piece in butter or bacon fryings until coated nicely with brown.
2. Place in casserole and scatter minced celery tops over pheasant or one cup of finely diced celery or a mixture of both.
3. Pour over one cup of sour cream or milk. Wine makes a delicious gravy. Cover and bake in a slow oven, 325 degrees F., until tender—about one hour. Remove cover the last 15 minutes of baking time.
4. Remove pheasant to a hot platter and keep it hot. Make gravy with pan drippings.
5. Serve with wild rice, brown rice or browned hominy grit cakes.

Wild Rice
1. Wash and pick over rice. Use as many waters as you think necessary to get the rice clean.
2. Cover each cup of wild rice used with one cup of hot water and one teaspoon of salt. Place in top of a double boiler and add two tablespoons of butter. Cover and let cook for about 45 minutes. Keep water in lower part of double boiler just bubbling during the cooking process.
3. If you wish the rice more moist, add a little more water during the cooking process.
4. I like to add one-half cup of mushrooms which have been sautéed in butter for each cup of rice used. Add extra salt if necessary.

Roast Pheasant
1. Rub inside of bird with salt. Stuff with well-seasoned bread dressing or cooked wild rice seasoned with salt and butter. Tie as you would a chicken.
2. Place on a rack in an uncovered roaster. Rub bird with butter or bacon fryings, or, if you wish it to be self-basting, put strips of bacon or salt pork on breast.
3. Do not add liquid or use a cover. Roast in a slow oven, 325 degrees F., for one to one and one-half hours. Baste frequently so that the meat will not become dry.

P. S. Instead of using sage in your bread dressing, finely diced apple makes a splendid addition.—(Des Moines Register)

LAMESA FARMER TO TERRACE NOW

Special to The Star-Telegram

Lamesa, June 21—Row crop land is usually not terraced in the summer time, but J. H. Reese of Lamesa expects to build terraces on his entire 320 acres before harvest time next fall.

For two years Reese has been practicing contour tillage on his farm located five miles southeast of Sparenberg and he claims that the crooked-row farming paid big dividends in increased yields of cotton and sorghum crops last year, due to the moisture conserved. He is co-operating with the soil conservation CCC camp near Lamesa and has been expecting to terrace the farm for some time, but the rush of work and lack of equipment has prevented his doing so.

Crops Washed Away

This Spring heavy rains coming after his crops were planted washed out most of the crops and a severe hail storm finished what was left. Although the land was contour tilled, the lister ridges had been worked down in planting operations and the contour furrows by themselves could not hold the heavy Spring rains. Hence, most of the crops were washed out. Reese believes that terraces are the solution to this problem.

The Reese farm lies along Sulphur Draw on land that has a slope of 1 to 4 per cent. The farm has been in cultivation several years and has suffered moderate erosion by both wind and water, and in some fields a few gullies are beginning to appear.

Good Moisture Lost

Realizing that soil and water conservation practices are necessary not only to increase his crop yields, but also to save the farm from eventual destruction, Reese began co-operation with the CCC camp at Lamesa last year in an effort to install a complete conservation program on the entire farm.

Since Reese does not have a crop on most of his land at the present time, he figures this Summer is a good time to
get his terraces built. Hence, he has made arrangements to secure the proper equipment and get the job done as soon as possible.

"If terraces had been constructed this Spring to hold the rain on the land, I would have had good moisture to replant, but as the rain fell in just a few minutes, most of it went to the Sulphur Draw," he states. —(Fort Worth Star-Telegram)

MACHINE TO DIG POST HOLES HELPS FARMERS BUILD FENCES

By Frank W. Bill

Pontiac—Duffy brothers, farmers and mechanics, utilized spare time last winter to make a post hole digging machine which has saved them a lot of hand labor this spring in building of new fences.

It cost just $25, including $17 spent for welding, plus a lot of junk parts from old autos and an old single row corn picking machine and two old corn shellers—and a lot of time in the farm shop.

Quite likely a new machine to do the same job would cost $500 or more, but junk and mechanical ability often serve very well in the place of cash on farms, and building machinery is just fun for farmer mechanics.

An old model T Ford truck provided the engine, frame and front wheels. A Chrysler rear axle was fitted under the rear of this frame, far enough forward to provide plenty of room for the digger at the rear. A short steel chain couples the old truck transmission to the rear axle shaft.

Gears from an old corn sheller drag line were mounted directly behind the old truck transmission, providing the chain drive for the digger.

Used Corn Picker Shaft

Angle iron was used for the vertical digger frame, and gears from the old corn picker machine.

An old rolling coulter from a plow was cut and shaped into an auger digger, mounted on the end of a six-foot two-inch pipe, the upper end fitted with a square shoulder into which was fitted the square drive shaft from the old corn picking machine. That square shaft telescopes into the two-inch pipe shaft of the auger when the auger is elevated.

The only labor connected with the digging of a post hole is that required to back the machine into position and operate the hand wheel that raises and lowers the auger. That hand wheel, by the way, came from an old hand power corn sheller.

Digs Through Frost

The machine was used by Martin and William Dully on the farm northwest of Pontiac, doing a first class job, even when there was frost in the ground.

This week Maurice Duffy has used the machine over south of Graymont, digging holes for 80 rods of new fence.

Because it is mounted at the rear of a truck frame, it can be backed into any fence for digging extra holes in old fences, as well as in cleared space where new fences are to be made. In case the ground is sloping so the truck frame cannot be placed level, the digger frame may be shifted so the post hole will be straight.

—(Daily Pantagraph, Bloomington, Ill.)

A NOVEL METHOD OF SELLING CIDER

Paul Muckley, an Ohio applegrower, has developed a novel method of increasing cider sales. During the late fall and early winter Muckley presses large quantities of cider, blending several apple varieties together. Fifty-gallon wooden barrels are used as containers.

The filled barrels are taken into storage and placed in the "zero" room and frozen solid. Five gallons per barrel is allowed for expansion in the process of freezing. The cider is kept frozen until five or six days before it is to be sold. It requires four or five days in a room temperature of 75 degrees for a barrel of cider to thaw completely.
No preservative is added to the cider at any time, and the fresh-cider quality is retained until it is marketed.

Muckley didn’t stop when he found a satisfactory method of making good cider for early-season use, but he also devised a novel method of successfully merchandising large quantities of it in competition with other soft drinks. A portable cooling outfit equipped with a refrigerating unit and a stainless-steel tank much like some of the commercial milk coolers was mounted on a trailer chassis. The entire outfit was then covered with a collapsible tent and awning.

With this outfit Muckley makes the rounds of the county and state fairs throughout the Corn Belt.—C. W. Ellenwood.—(Country Gentlemen)

ELECTRIC DRIVE IMPROVES SAW RIG

Experiencing continued difficulty with its gasoline-motor-driven saw rig, the City Fuel Company, Seattle, Wash., switched to electric power by exercising considerable imagination and ingenuity. As shown in the accompanying illustrations, an old truck frame and cab, including the truck motor, were used to construct the new rig. One 40-hp., 440-volt, three-phase induction motor drives the conveyors, chains and saws by belts. The motor is mounted directly behind the cab on the frame of the truck and underneath the conveyor platform. The motor cost $300, one 200-ft., three-conductor No. 6 cable $120, and the total cost $675, including $255 for installation.

Operating data on a monthly basis for the rig is 600 cords of firewood, 1,800 kw.-hr. power requirement, 120 man-hours (one man handles the equipment on a six-hour shift). Since building the first machine, City Fuel has constructed two more and had another built by contract for its Everett, Wash., yard. All of these rigs are portable, and J. R. Tucker, superintendent of the fuel company, says: “These machines are much faster and save about $1 per cord over the old method.” Advantages of the electric-powered rig are that it is fireproof, cuts to exact lengths desired and reduces labor and maintenance cost.—(Electrical World)

TRACTORshifts RAILWAY TRACK

Great saving of track-moving labor is accomplished at the works of the Timken Roller Bearing Co. by a tractor bulldozer fitted with the lifting and pulling attachment illustrated. This attachment is made of two torch-cut 1-in. plates set parallel and welded to cross-spacers. The tops of the plates are cut to hook tightly over the top of the bulldozer blade. Two dogs and a hook, which runs back under the blade, make the bottom of the attachment secure. In operation the tractor moves ahead to hook the device under the far rail and lift and drag the track toward the edge of the dump or it backs so that the device bears against the near rail and the track is pulled inward. As used at the Timken steel mill dump it is estimated that 1 hr. of tractor work equals 96 hrs. of hand labor when working on the level and 120 hrs. when moving track uphill. The device is not
manufactured by the Timken company; it is described here as a service to contractors or others who have track shifting to do. Any well outfitted machine shop can make the device. As used at the Timken mills, it is fitted to a diesel crawler-tractor bulldozer.—(Engineering News-Record)

The following story is an excellent example of a short article that combines spot news with added information material. It was published in the Engineering Experiment Station News of Ohio State University. Note that it has a summary news lead and that it is constructed in pyramidal news form. As it was printed, the article also contained three photographs, two tables, and seven footnotes, one of which contained a third table.

A NEW ALLOY CAST IRON FOR USE AT ELEVATED TEMPERATURES

By A. H. Dierker
Research Engineer
Engineering Experiment Station

An alloy cast iron recently developed at the Engineering Experiment Station for use at elevated temperatures has shown definite commercial possibilities, including relatively low cost and excellent foundry properties. We present briefly some information on its properties and applications.

This alloy, developed in cooperation with the Globe Iron Company at Jackson, Ohio, who control the patent rights, has been designated by the name "Globeloy."

The material is essentially an alloy cast iron with silicon and chromium as the principal alloying elements. A typical analysis is given in Table I. In this table, taken from data previously reported, are shown the growth and scale loss under prolonged exposure at elevated temperatures in comparison with those of cast iron of normal composition.

The mechanical properties of the material as cast are quite good as the following list indicates:

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<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total C</td>
<td>1.86%</td>
</tr>
<tr>
<td>Si</td>
<td>5.80</td>
</tr>
<tr>
<td>Mn</td>
<td>0.35</td>
</tr>
<tr>
<td>P</td>
<td>0.137</td>
</tr>
<tr>
<td>S</td>
<td>0.055</td>
</tr>
<tr>
<td>Cr</td>
<td>3.58</td>
</tr>
<tr>
<td>Transverse strength</td>
<td>2,230 lbs.</td>
</tr>
<tr>
<td>Total deflection</td>
<td>.137 in.</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>31,800 lb./sq. in.</td>
</tr>
<tr>
<td>Brinell Hardness No.</td>
<td>363</td>
</tr>
</tbody>
</table>
Despite the high Brinell hardness, no serious difficulty is experienced in machining the material. Fig. 1 shows its microstructure as cast and after use. Apparently the pearlite present in its as-cast material is, on exposure to elevated temperatures, spheroidized. Thus machinability can be improved, and, as will be shown, at no loss of mechanical strength.

Experience in one commercial application of the material raised the question of mechanical strength at temperatures above 1,600°F. A simple test was made to get a direct comparison of its strength, under such conditions, with a high strength cast iron.

The test pieces were bars \( \frac{5}{8} \) in. square by 12 in. long. These were tested transversely on 10 in. centers with the load applied at the middle. In making the high temperature tests, the bars were heated to temperature in an electric resistance furnace and tested as rapidly as possible and before the temperature dropped appreciably.

The results obtained (Table II) indicate that the material has reasonable strength, at elevated temperature and that its strength at room temperature is not impaired by annealing as is the case with either ordinary or high strength cast iron.

Trial commercial applications of the material have indicated that its relative resistance to growth and scaling under actual operating conditions is about as disclosed by the laboratory tests previously reported.

In Fig. 2 is a small box (6 in. x 8 in. x 3 in. deep) for holding small parts for heat treating. This box was tried out in a commercial gas-fired furnace. The photo shows it after it had been in service 112 hours at temperatures ranging from 1,600° to 1,750° averaging 1,635°F. It is still in good shape and would stand many more hours of service.

This new alloy has been successfully made in a cupola as well as in an electric furnace, and there is little doubt it could be made in an air furnace should production warrant it. A typical mix for producing Globeloy in the cupola is:

- Silvery Pig Iron (10.00 Si, 6.00 Cr) \( \ldots \) 65%
- Steel Scrap \( \ldots \) \( \ldots \) \( \ldots \) 35%

The iron produced has excellent casting properties. No trouble is experienced in running very thin sections. The cost of production is quite low for a material of this nature.

**ASSIGNMENTS**

1. Clip and turn in ten news-experience articles from current magazines or newspapers. Analyze each briefly as to content and as to structure.

2. Examine five issues of as many different journals and list the topics of the news-experience articles that they contain.

3. Turn in five ideas for news-experience stories that you can secure; explain where you would get them and what you would put into the stories.

4. Carry out the above assignments for news-information stories.
FURTHER ASSIGNMENTS

For classes which may wish to continue with additional writing of this type of article, some of the various types of articles which might be written are as follows:

1. Write an article telling how to make or do something, based on your own personal experience. This should be practical, of sufficient general interest, and something that can be readily made by the readers of the publication for which it is intended. It might be a new type of building, a useful appliance or device, a method for success with some crop, a way of feeding livestock, a farm management hint, control of some pest, a cooking recipe, a well-planned meal, for example.

2. Write another story of the same type as above, but based on the experience of someone else, obtained by an interview.

3. Write a story for general readers based on recent experimental work. Play up the practical application angle, if possible, in the lead. Material should be secured by interviewing the research workers responsible.

4. Write another story for general readers based upon experimental results on a recently published bulletin or article in a technical publication or scientific journal. If you can interview the author to get further information or personal slants, do so.

5. Write a short article based on a current extension activity or project along your major line of interest. Some extracurricular or off-campus work of a faculty member not doing extension work as such, would serve.

6. Write an article based on the activity or work of some organization or agency, either local or state.

7. Write a story for a farm paper, household magazine, or trade paper based on an idea which you found in a story clipped from a daily or weekly newspaper.

8. Write a short article of timely information that has no actual news quality, but which will be interesting because of timeliness and sprightly way in which it is written.

9. Prepare a four-page leaflet of information for distribution: Something a county agent might write on local pest control, that a home demonstration agent might write for use in canning demonstrations, that a farmer might send to potential buyers of his hybrid seed corn or other product, that a nursery or seed store might send or give to customers, that a builder or architect might send to prospective builders of homes.

10. Write a short story article or copy for leaflet for the purpose of making plain to the general reader, or to some special class of readers, the meaning of some technical word or phrase well understood by you but not to the possible
reader. Make it interesting. Show by use of specific examples how the term applies to the reader. For example, if you take ultraviolet light, apply its use to poultry or to bacterial ring rot of potatoes. If you explain the Brinell test to a landscape gardener, show him where to find the test mark on a new nursery spade. If you select nicotinic acid, tell it in terms of pork chops—if these contain the substance. Some suggestions for an assignment of this sort would be: Brinell test for hardness, boiler meter, standby plant, vitamin D, pH, FFA, REA, FSA, kwh, USP, nicotinic acid, soilless culture, photoelectric cell, homogenized milk, continuous-freeze ice cream, Gouda cheese, mastitis, nylon, fortified foods, photosynthesis, triploid, wind bracing, photoelastic, water walls, turbulent type, fly ash, centrifugal pump, "Hard" X-ray, clone, dynamometer, kaolin, *Chrysanthemum coreanum*, pyrophyllite, diesel, colloid, late blight, All American Selections, pectin, abrasives, diffusors, veneers, haydite, Underwriters' Laboratories Inc., Insp. Cord, open formula, calcium chloride, calcium nitrate, trisodium phosphate, miscible oil, cryolite, monohydrated copper sulfate, atomic radio, methyl bromide, cellulose acetate, grass silage, direct buying, fresno scraper, deep well cooker.