

OF INTEREST TO FARMERS

GULLY CONTROL

In the conservation of our greatest national resource, the soil, gully control plays an important part. The actual loss of land due to the formation of the gully may not be great, but the time consumed and the inconvenience occasioned by farming around it may be considerable. One common and very successful method of attacking newly formed gullies which have small watersheds of three to four acres is to fill them through their entire length with cornstalks, straw or coarse manure and then plow in the earth from either side. When a tractor is used one wheel may be run on the newly formed fill to compact the soil. Plowing in without the preliminary filling with straw is usually a wasted effort. Often, through neglect, a large gully will form although the watershed may be small. In most cases these can be filled with a tractor and road grader and seeded to oats used as a nurse crop to some legume. For ditches which carry considerable water and of depths up to about six feet, a series of brush dams or retards placed from 75 to 100 feet apart gives excellent results. Brush thrown loosely into a ditch or held in place by a few small stakes will not give results. Good posts must be set to a depth of three feet or more and the earth solidly tamped around them. In a ditch three feet deep and 10 feet wide a single row of four-inch posts is set across it and spaced two feet apart. Next, the bottom of the ditch is covered with coarse straw to prevent the water from washing under the dam, and then the green, brushy limbs are piled with the leafy ends down the stream and the cut ends upstream. One man working on the dam tramples the limbs into place and hooks some of them over the posts. The sides next to the banks are kept full and the center low. Next two stout poles are wired with No. 9 soft wire across the posts, sloping to the center of the dam to hold the brush in place and keep the center low so flood water will seek a passage over the dam rather than around the ends. When a few forkfuls of straw have been trampled in on the upstream side, the retard is finished. For large ditches longer posts are used and set deeper, in two lines three and a half to four feet apart. To the downstream row, long limbs are hooked to form an apron on which the water may fall as it flows over the crest. Between the two rows, finer brush is tightly packed heaping full. Then it is held in place by lacing No. 9 wire back and forth from one line of posts to the other. The banks of gullies are often nearly perpendicular, and in this case it will be found difficult to keep the water from cutting around the side of the retard. It is advisable to slope the banks by spading off the top, or a trench may be dug in either bank just below the downstream row of posts and kept packed full of straw as the brush is piled in.

WATCH PROFITS, NOT BILLS

Are you afraid of a big feed bill? Some folks are. This fear is a hangover from the old scoop shovel method of feeding. Under that method, increasing the feed for all cows did not result in a greater profit, in this simple reason: The increase in profit over feed costs on good cows was offset by the loss on other cows that had no ability to turn extra feed into milk or cream at a profit. Here is the result of a test made with a herd of 12 cows: Feed bill, \$95.20 per cow per year. Profit above feed costs, \$114.09 per cow. Every dollar spent for feed brought in \$2.19. Production, 347 pounds of fat per cow. "The size of the feed bill doesn't worry me," the feeder observes. "In fact, it is cows capable of handling this much feed, or more, and economically turning it into milk, that I want in my herd. Another herd ate only \$88.76 worth of feed per head. The income above costs was only \$79.43 in that herd. In a herd of good cows, a big feed bill is a good sign." There is one cow in the herd that produced 701.6 pounds of fat. She had been owned as a milk-for-cereal and cream-for-coffee cow by various town families before this feeder purchased her. Nobody realized her capacity to turn enormous amounts of feed into milk and fat until she was put on test. When he did this, and started to feed her and the other cows according to their ability to produce profitably, he found the town cow could handle much more feed than the others. In six months she brought in \$175.62 above feed costs. At the same time, another cow had only \$7.93 to her credit after paying for feed.

BALANCING RATION

Where a good quality of alfalfa hay is the only roughage fed and it is fed to the limit of appetite, most any combination of the cereal grains is adequate in protein content for a well balanced ration. In fact, more protein is supplied than is required to meet the feeding standard. For example, a mixture of 300 pounds ground corn, 300 pounds of either ground oats or ground barley, and 200 pounds of ground wheat, when fed to Guernsey cows at a rate of one pound for each three and one-half pounds of milk, plus alfalfa hay to the limit of appetite, supplies more protein than is needed. Calculating a ration for a cow weighing 1,100 pounds, producing 25 pounds daily of milk testing 5 per cent butterfat, we find the following: Assuming the cow will eat two pounds of hay daily for each 100 pounds of live weight and feeding the grain mixture at a rate of one pound for each three and one-half pounds of milk produced, the ration would be 22 pounds of alfalfa hay and 72 pounds of grain. The grain mixture composed of 300 pounds ground corn, 300 pounds ground oats (or ground barley), and 200 pounds

ADVERTISING ALWAYS PAYS

Advertising in the press as we see it today is truly one of the great influences of the country. The colored page can introduce a new food product and make it a part of the every day diet within a relatively short time. The carefully planned copy of the automobile industry has changed the mode of transportation so rapidly that the luxury of but a few years ago is accepted quite generally as the necessity of today. Development in this field of newspaper advertising has been largely attributed to recent years. However, it dates as far back as 1649. One of the first known paid advertisements was

ground wheat would contain about 8.5 per cent digestible protein and 76.8 per cent total digestible nutrients. On this basis, the ration, including roughage and grain, would contain 2.94 pounds digestible protein and 16.75 pounds total digestible nutrients. The nutritive ratio of this ration is one unit of digestible protein to each 4.7 units of carbohydrates. A ration is considered well balanced for dairy cows with respect to proportion of nutrients when it contains one unit of digestible protein to each 6 to 7 units of carbohydrates (fats converted and included). When we compare the nutrients supplied in this ration with the nutrients required for production and maintenance, as indicated by the Harker feeding standard, we find also that more protein is supplied than is needed. The ration supplies 2.94 pounds digestible protein and 16.75 pounds total digestible nutrients; the requirements are 2.27 pounds digestible protein and 13.6 pounds total digestible nutrients. As long as the surplus protein comes from home grown alfalfa hay we need not be concerned about it. The comparison, however, gives us another slant on the ration. We are short on total digestible nutrients. The cow must eat more than two pounds of alfalfa hay daily for each 100 pounds of live weight, or we must feed the grain at a rate of more than one pound for each 3 1/2 pounds of milk produced. It is suggested that cows producing under 20 pounds of milk daily be fed grain at a rate of one pound for each 3 1/2 pounds of milk produced, and that cows producing over 20 pounds of milk daily the rate be increased according to production up to one pound of grain for each three pounds of milk produced for cows producing 40 pounds of milk daily. The cereal grains need not be extremely finely ground. Coarsely crushed grain is satisfactory for cows.

SAVING VEGETABLE SEEDS

There was a time when cabbage seed was sown during November and December for the early crop which was set in the fields the following March. There has been a gradual drifting toward later seeding and younger plants. The feeling still exists among some growers that a cabbage plant cannot produce a head unless the seedling is fairly old at transplanting time. Practical observations and scientific experiments demonstrate that such is not the case. The younger plants produce the earliest heads for the early market. Tomato plants can be produced in eight weeks. There is a tendency to sow seed too early, thereby getting the plant ready before it can be safely set in the field. It is then necessary to hold the plant in check. The first ripe fruits may come from hardened plants but the number of such fruits which are of first quality will be relatively small. The bulk of the early marketable fruits will be much smaller from hardened plants than it will be from tender plants. Tender plants besides being more profitable, can be produced with less expense. A fine, stocky, tomato plant about 10 inches high with the first blossom cluster just formed is the most profitable kind to set in the field. Good cabbage plants can be produced in six weeks. Cabbage is less affected by hardening than the tomato. It is much safer and easier to force plant growth than to retard it. For that reason the time of seeding can be delayed with greater safety than it can be advanced. Melons and cucumbers when set in the field need not be more than four weeks old. Late cauliflower, Brussels sprouts, kohlrabi, and leaf lettuce can be ready for the field in from four to six weeks. Early cabbage, beets and head lettuce plants are produced in from six to eight weeks. Eggplant and pepper plants require 10 to 12 weeks in the seedbed. Celery plants are given the most time allowed for any vegetable crop—usually 10 to 14 weeks.

THIN HENS

Science has recently found the reason for the thin, emaciated hens which have been only too common on poultry farms for years. For lack of a better explanation the trouble was called anaemia or "going light." This emaciated condition is generally apparent after the pullets begin to lay and may occur occasionally at any time throughout the life of the individual. It has been found that the trouble is due to a chronic or small intestinal type of coccidiosis, different in behavior and action from the type which affects growing chicks. This latter type can be readily controlled by feeding a 40 per cent dried milk mash on the range. The chronic trouble rarely appears on the range. The pullets are housed in the fall, possibly not quite so heavy as they should be, but still presenting a good appearance. As soon as they hit a fairly heavy production, around 40 to 60 per cent, they are apt to drop in pieces, lose weight, many thin birds develop, such birds dying only after a long period of ailing. They simply cannot stand the strain of heavy production. As yet science has found no sure way of controlling this infection. The best answer to date is thorough sanitation and care throughout all operations, disinfecting incubator eggs to kill any coccidia which may be on the shell, thorough disinfection of incubators and brooders, growing chicks on clean land, avoiding contaminating the range through contact with old birds, and confinement of the pullets when they are placed in winter quarters. This type of coccidiosis causes much of the great loss now apparent in laying hens.

A PROPER MIXTURE

When wheat is fed to poultry, green feed, such as leafy alfalfa hay, should be included in the ration to supply vitamin A.

printed during that year and was concerned with a stolen horse. The advertisement as it appeared in "The Moderate," a London publication, follows: "Reader, thou art entreated to enquire after a blackish kind of piebald nag, very poor, his face, feet and flanks white and a little white tip on his tail. He was stolen from grass from John Rotterman of Barnet, in Hertfordshire. Whosoever will enquire, find him out, and bring, or send tidings of him, shall have what content they will for their pains. And this story ends as all good advertising stories should end; the horse was found and returned a few days later,

Red and Green Velvet New Boudoir Costume



Printed velvet offers something new for the boudoir costume. The fastidious deb selects a robe of black velvet gaily accented with a flower motif in red and green.

Part-Time Baby Arrives in New York



Little Mary Hay Barthelme, 8, arrived in New York City to live for the next six months with her mother, Mary Hay, the dancer, was so aroused by the child's tardy arrival that she turned publicity on her ex-husband, Richard Barthelme (both above), for the first time since their divorce four years ago.

Father of Wireless Honored by Academy



Famous as the "Father of Wireless," Guglielmo Marconi wore full-dress uniform when he was proclaimed president of the Italian Academy of Arts and Sciences.

Experts Study Noise Prevention



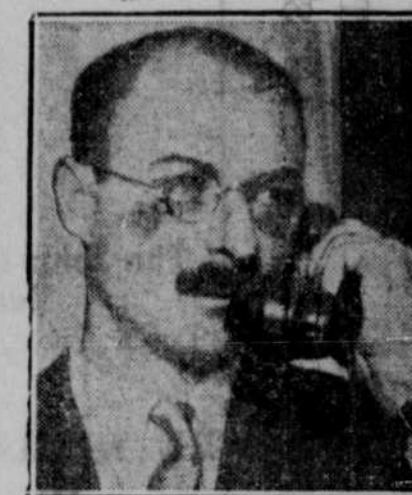
Engineers and transit officials testing a new noise measuring device in a New York City subway. They seek ultimate prevention of jarring sounds by eliminating the causes.

Christens "Orange Blossom"



Arene Bordoni, stage and screen luminary, starred in the christening of the "Orange Blossom Special," New York-to-Florida winter train, as S. B. Murdock watched. It's train's inaugural 1931 run.

Brooklyn Lawyer Assigned to High Post



Henry Epstein, of Brooklyn, N. Y., son-in-law of Max D. Steuer, noted New York lawyer, has been named First Deputy Attorney-General assigned to the Albany office, pictured receiving congratulations.

Her Husband's Death Attributed to Poison



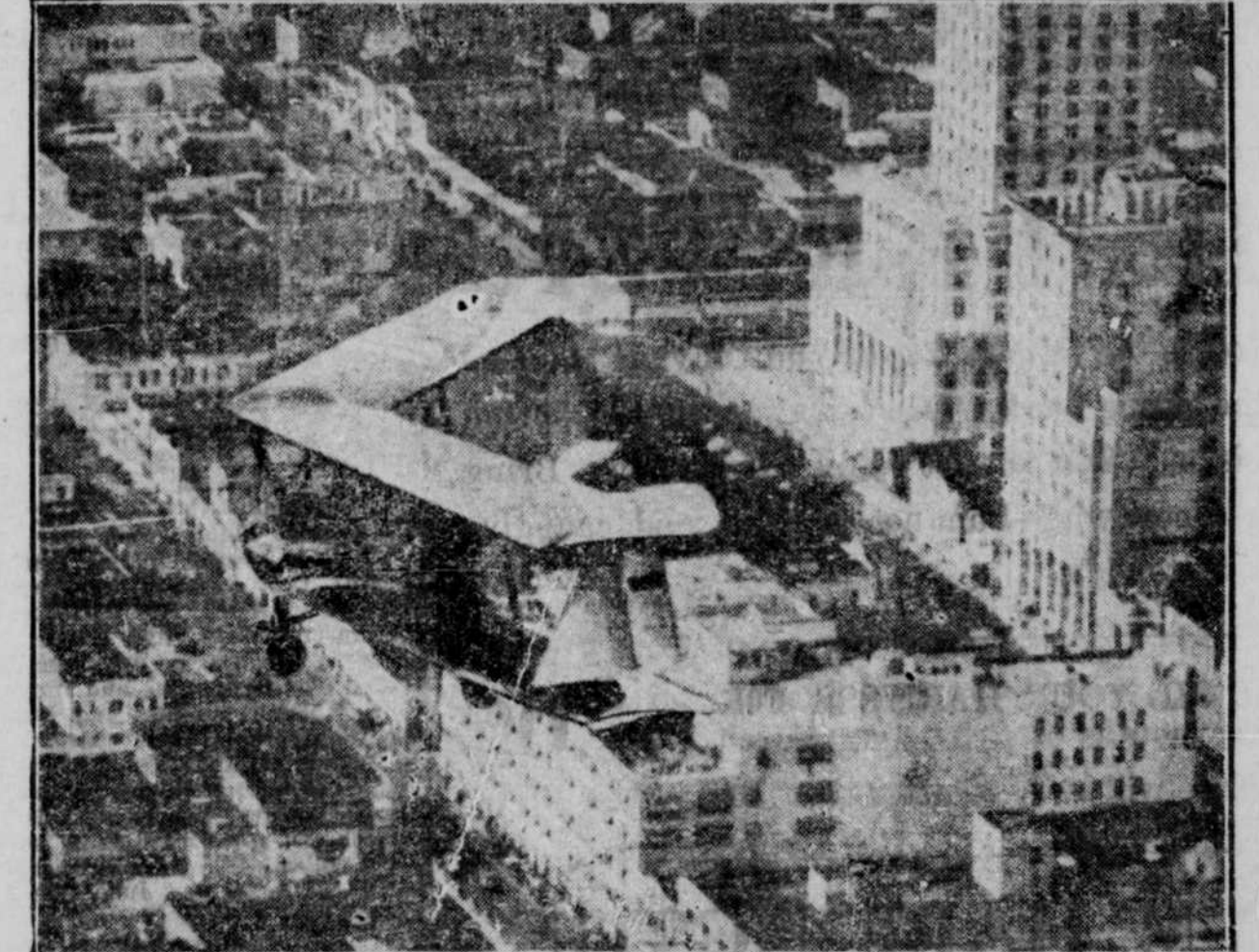
Mrs. Leona Trenkler Simon, widow of Harold C. Simon, in whose exhumed body were found traces of tantalum, a rare mineral substance never before found in the human body. Mrs. Simon is now serving nine months in the Monroe County Prison, Rochester, N. Y., for grand larceny in misappropriating bank deposits of her father, Edward J. Trenkler.

In the Bag!—What's in the Bag?



Bottled run, plenty of it! The foot fishing smack, Bertha A., booby bags were recovered by coast guardsmen from secret compartments aboard the 59-

Air Flivver in Flight Over Miami



The tailless Arrowhead Safety plane in test flight over Miami, which can be constructed to sell at \$1,000. The latest innovation in aircraft was viewed by interested spectators.