

SILVER THREADS AMONG THE GOLD.

Darling, I am coming back— Silver threads among the black, Now that peace in Europe nears I'll be back in seven years, I'll drop in on you some night, With my whiskers long and white, Yes, the war is over, dear And we're going home I hear, Home again with you once more Say by nineteen twenty-four, Once I thought that now I'd be Sailing back across the sea, Back to where you sit and pine, But I'm stuck here on the Rhine, You can hear the gang all curse, War is hell but Peace is worse, When the next week comes around In the front ranks I'll be found, I'll rush in again pell mell Yes I will—like hell—like hell.

HER HERO'S RETURN. An Almost-Love Story.

Katharine Crane stood in front of the hall mirror pinning the big black velvet hat over an elaborate arrangement of yellow curls, which it had taken her an hour of experimenting to achieve. With a final jab of the pin she stepped back and surveyed her reflection in the mirror. The gray roses nodding on the hat brim were no brighter than the excitement-pink of her soft curving cheeks; her eyes were twin blue stars; the tiny service pin fastened to the frilly tulle veil on the swell and back breathing. If only, Katharine thought, she could be Mother wouldn't make her wear such young clothes!

"Kitten!" the rolling pin in the kitchen suspended its thuds for a moment. "Kitten dear, are you going by the grocery?" "And that silly name! Anyone would think to hear it, that she was a child instead of a grown-up lady of seventeen with a thrilling Secret that only she and Someone Else knew. Just ask Mr. Devins to send up a pound of lard and a box of raisins. A little happy laugh ran through the words. "Bob wouldn't think he'd got home if the gingerbread box was empty!"

The everydayness of the errand jarred with Katharine's exalted mood. It seemed almost sacrilegious for Mother to be thinking about lard and cooking, as if this were nothing more than Tuesday, instead of the glorious day when Madderley's boys were coming home.

All along maple-bordered Main street flags were tossing in the crisp February wind and the shadows of flags stirred silently across the sunny street. Katharine's fingers crept to the tiny pin above her heart. Everybody thought, of course, that it meant her brother Bob—how surprised they would all be if they knew for whom she was waiting.

"Hullo!" The familiar voice in her ears brought her back to the present with a bump. Gilmore Carnahan jumped off his bicycle and fell into step with her, trundling it at her side. "I suppose you're going to the clubhouse—they've fixed it swell! But I don't know—He hesitated, frowning. "Somehow I don't believe the boys'll want all that reception and speeches stuff! I wouldn't, anyway!" "Oh, you!" He winced visibly under the unconscious sting of Katharine's tone. "I guess if you'd done the perfectly grand things they have, you'd expect people to make some fuss over you!"

The boy's young jaw was set in grim lines. "Maybe I would," he said briefly.

For twelve of his eighteen years Gilmore Carnahan had lived next door to Katharine, made mud pies with her, carried her books home with her, Later he had escorted her to High school dances and the entertainments at the Elks' Hall. But since his two brothers had marched away with the other Madderley boys she had not seen so much of him. He was oddly different, more silent, preoccupied with his garden and his chickens.

She glanced up at him now, appreciably—crisp brown hair that would curl in spite of determined brushing, straight nose, chin with the little cleft in it. Yes, he was good-looking, but after all, he was only the Next-Door Boy, who had never done anything thrilling or heroic.

Gilmore stopped abruptly, a dark wave of embarrassment creeping to the roots of his hair. "It hasn't been a very pleasant world to me for two years," he said slowly. "And it's partly because of something that happened the day when we were all down at the station seeing the boys off."

Katharine drew a gasp of breath. "Do you mean—" she faltered; "but I thought nobody noticed!" He nodded. "I wasn't trying to, but I couldn't help it. I saw you kissing Raymond Orr good-by."

Ensued a tense silence. Then defiantly she faced him, chin high, though her cheeks burned. "Well, and if I did, what business is it of yours?" Gilmore laughed bitterly. "Oh, nothing! Only we've gone together for years, and I always sort of planned that some day when I was through college we'd be—we'd be married. Still that doesn't make it any of my business, of course. The line of his jaw sprang out suddenly under his young skin. "If it had been anybody else except him—but Raymond Orr! That soda fountain sissy, with his perfumery and hair oil and his eyes at the girls' feet."

"Gilmore Carnahan, you stop right there!" Katharine's eyes were wide with horror. "You've got a nerve to criticize a man who's been fighting for your country while you stayed at home digging in a garden!" She was cruel in her championship of her back from war. And then she saw below, in the dusk of the next-door yard, a tall, lonely figure leaning disconsolately against the gate.

Gilmore Carnahan looked up with a start as she stood beside him. In the clear moonlight the boy and girl gazed into each other's faces shyly. Then with a cry Gilmore took the small hands awkwardly in his big clasp.

The words stumbled over a sob as she turned blindly away. "Katharine!" Gilmore cried, "I'm—I'm sorry!" "But she was gone, running up the clubhouse walk in an indignant whirl of short blue serge skirts, and he made no move to follow. At three that afternoon Madderley station was crowded with fathers and mothers, small brothers important with cowbells and horns, small enticed and ribbon sisters waving enthusiastic flags. As the train drew in, Katharine felt her heart pounding so loudly it seemed as if everyone must hear.

The Firemen's Band crashed into the "Star-Spangled Banner" as the eager young khaki-clad figures swarmed down the steps to the sound of deafening cheers. Quivering, shaken to the depths of her soul with emotions for which she had no name, she felt herself caught up in a great hug as Bob pushed through the crowd. "Kitten! Gosh, but you're grown! Where's Mother and Dad?" With a strange sense of flatness she watched her big bronzed brother lift Mother off her feet and shake Daddy's hand as if he would never stop.

At the rest—she looked about her bewilderedly. The soldier with the sergeant stripes on his sleeve pounded the white-haired man on the back was Billy Devins. Beyond him Roscoe Emmett, the plumber's son, was tossing his small nephew on his shoulders. "Why," she thought, "they don't act like heroes. They're just Madderley boys. They haven't changed at all."

Ant then, through a rift in the crowd, she saw Raymond Orr, his overseas cap jauntily on his one side, a little self-conscious smirk on his weak, handsome face, bowing right and left to the cheering crowd. As he stood there, hands on hips, he looked the very picture of the heroic soldiers on magazine covers, and— with a sudden flash of his eyes, she knew it—he wanted to look that!

"He's posing!" she thought, incredulously. One of the girls from the corset factory across the river, a bold-eyed, pretty, brazen creature in a red hat, tossed a curling ribbon of red, white and blue paper to his right, a little self-conscious smirk on his weak, handsome face, bowing right and left to the cheering crowd. As he stood there, hands on hips, he looked the very picture of the heroic soldiers on magazine covers, and— with a sudden flash of his eyes, she knew it—he wanted to look that!

Bob's voice, in the accents of outrage, interrupted: "A reputation to us? What's the big idea?" "An address of welcome, too, they tell me—speeches—" roared Peter Carnahan. "How I Hunted the Hun; by our gallant corporal, Robert Willis Crane!" "Oh, boy! why did I ever leave the safety of the trenches?" Bob grinned. "None of that ice-cream-soldier stuff for little old Yours Truly, Me! Tell you what, let's make it a dance like we used to have. We'll cart our phonograph down. Got any noisy jazz records, Kitten? Gee! fellers, isn't it bully to get home?"

In the joyous noise all about her Katharine's silence was unnoticed. Hot-cheeked, with lowered eyes, she walked by Bob's side up the beflagged Main street, that no longer seemed a Road of Romance, but bare and ugly and drearily commonplace in the cold gray light of late afternoon. The color and glamour had faded out of the world. Even the flags, flapping listlessly, held no thrill. All about her she heard shouts of discovery. "Hey, Sam, look at the firehouse! That new cupola is certainly becoming!"

"Notre Dame may be all right, but give me Madderley Town Hall any day."

And this was the return of Madderley's heroes! Not as she had pictured them, battle-scarred, grim, marching between weeping, cheering throngs, but straggling up Main street like a lot of boys just out of school! Only one played the role of hero—she saw him now swaggering by, the girl of the red hat hanging on his arm, and she scowled for two years she had laid all her girl dream before this idol of cheap common clay!

Over his third piece of hot gingerbread at supper Bob spoke casually of him. "Mother, where's my old dress suit? I bet Orr is the only fellow who'll wear a uniform at the dance tonight. You'd think by the airs the poor dud puts on he'd won the war all by his lonesome, and as a matter of fact, he never was under fire at all!"

Mr. Crane looked across the table at his son with a queer smile. "It was pretty fair-to-middling proud of you boys when you were away, son," he said slowly, "but I'm a whole lot prouder of the way you've come back! I've been worrying all along for fear this war business was going to upset you—go to your heads, make you restless and anxious for excitement. But as far as I can see you're going to take up life where you left it."

"You bet!" Bob declared fervently; "the war was a job that had to be done, and it's over, that's all. That's what we fellows used to talk about—coming home and getting back to work. Billy's going into the grocery, Peter Willis and Johnny Hines are going to finish up their college course, and I'll be down to the office boning Blackstone tomorrow, Dad, bright and early."

Later in the evening, Katharine, pleading a headache, sat at the window of her own room, staring out into the dusk and thinking over Bob's words. The war was over. Life would settle down into the old quiet, prosy round of school and errands at the grocery, and parties. Suddenly Katharine knew that she was glad. She stretched out her arms in a little gesture, as of welcoming to the old world that had come back from war. And then she saw below, in the dusk of the next-door yard, a tall, lonely figure leaning disconsolately against the gate.

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"You look as if—as if you'd forgotten me for what I said this morning," he choked. "I was a beast to talk like that, but— Well, I was feeling pretty sore not to have been in things over there!"

The hoarded misery of two bitter years, quivered in his voice. "You see, when America got into the war we talked it over and decided we couldn't all go and leave Mother alone. Of course they were older, and it was only fair they should have first chance. Only, when I read the papers and saw the flags and— and like that, it made me— He groined for adequate words to explain the inexplicable. "Well, it made me pretty darned sick, I can tell you!"

"I know how it was!" Even in the dimness Katharine's face was scarlet, but she plunged bravely on. "That's what I came over to tell you—about Raymond Orr, I mean. Why, I didn't know him hardly at all, and I never liked him much. But that day at the station, the band was playing 'God be with you till we meet again,' and then the flags and everything, and he hadn't anybody to say good-bye the way the rest had. I thought maybe he'd never come back—and—and—I kissed him because I just had to do something!"

She spoke so low that he had to bend very close to the tremulous red lips to hear. "But, Gilmore,—I don't care about him, truly—" "Then," his voice fumbled over the words that seemed to mean strangely more than they said, "then we're going to stay friends forever and ever—and things are the same as they were before."

Katharine looked down the moon-splashed street, and now it seemed to her neither a Road of Romance down which soldiers might march to life and drum, nor the dingy path of disillusion of the afternoon, but the dear familiar street where they had played when they were children—the Street of Home.

"Yes," she said dreamily, "yes, everything's just the same as it was before." Still, Gilmore was not quite satisfied. "But the war's over, and I wasn't in it!" The mother instinct rose in her small sweet soul in answer to the wishfulness of his voice. She laid her hand on his arm. "Never mind, she comforted him. "never mind, Gilmore,—I just know you'll lose an arm or a leg, or do something splendid, in the next war!" —By Dorothy Donnell Calhoun, in the Woman's Home Companion.

Sound the Jubilee.

Greatest in its program for a better and happier America—greatest in its program for a safer and happier world—great in bringing together the trained and untrained, the organized motherhood of all America, and the financial resources to protect civil life, to safeguard women in industry, to put the spirit of America into the heart of the foreign-speaking home, and to create a loyalty and faithful citizenship in the hearts of the alien-born and the Christian laws. Great in its program for the world, when Frances E. Willard and her co-workers in 1884 founded the world's Christian Temperance Union, they placed upon the United States organization a responsibility and privilege that has never been shaken off. Other organizations may need to have new paths in the work for world prohibition, but that of the Women's Christian Temperance Union is already made. Already the organization formed by her temperance mission to forty-three countries have been doing pioneer work and are ready for the big and advanced plans. Already schools, missions, and homes are pleading for more helpers and more literature with which to defy the brewer. The Woman's Christian Temperance Union—organized by christian women, and another mother love in a christian law—will bear the responsibility for mothers and children the world over. World prohibition must be won! On with the drive for America and the world!

What is Ptomaine Poison?

The term "ptomaine" poisoning has become a cloak for ignorance. This, sometimes suspected, is the editorial pronouncement of the Journal of the American Medical Association. In fact, an acute gastro-intestinal attack resulting from a great variety of causes may be called "ptomaine" poisoning. Selmi, in 1873, first used the word ptomaine (from the Greek ptome, a corpse) to include the poisonous products of putrefaction which gave the reaction then looked on as characteristic of vegetable alkaloids. Our conception of these substances has changed markedly. The so-called ptomaines isolated and described by Selmi were usually obtained from putrid organic matter that had decomposed past the point at which it would be called food. Furthermore, most of these substances were tested by injecting them subcutaneously or intravenously into animals. Many substances are poisonous when thus introduced, though they may be harmless by the mouth. Chemists avoid the use of the word ptomaine, for the reason that it lacks precision. This is a curious instance of the popular use of a technical term that sounds well, but means little. Ptomaine is a term for chemical substances of uncertain origin, unknown nature and doubtful existence.

Hard on the Patient.

The professor at the medical college had been lecturing upon the strength and value of a certain medicine, and at the end of the talk began a short examination. "Now, sir, said he, turning to one of the students, 'in a case such as I have described, how much of the medicine would you administer and how often?'"

"A tablespoon every hour," came the reply. There was a short pause and then the student said hastily, "If you please, sir, I'd like to change my answer, I—"

"Too late," said the professor, solemnly. "Your patient is already dead." —Philadelphia North American.

Society Item.

Albany Vindicator—"Mrs. John Lewis entertained paper hangers one day last week."

17-Year Locusts Due Last Week In May And June.

The United States Department of Agriculture has sent out a warning that during the coming summer the United States will see the reappearance of "the seventeen-year locusts," perhaps the most remarkable of all insects.

For seventeen years this insect has been living and moving beneath the earth in darkness and cold and gloom. During the last week of May or the first week of June it will emerge from the earth grow wings and enjoy a few weeks of gay life in the light of day. Billions of these insects will then come to light.

The insect chooses a time toward sunset to crawl out of the ground, so that it may be ready to fly bright and early the next morning. It will climb up a tree, and by its struggles will shake itself free of its old brown skin.

When it first comes out of its skin it will have small, white soft useless wings. With almost miraculous rapidity these will grow on the air of day until they are large, strong wings, with which the seventeen-year cicada can fly and buzz.

After assuming the winged form the locust will enjoy only five weeks of open-air life. Almost immediately the female begins to lay her eggs. In order to make a place for them she chews grooves in the young branches of trees, thereby causing considerable damage. Then she dies.

In a few weeks the grub hatch out of the eggs crawl out of the branches, down the tree to the ground, dig in and there spend another seventeen years in darkness. Why they spend this particular period underground is a good deal of mystery. One philosopher has called it a symbol of the resurrection of the body. One large brood spends thirteen years instead of seventeen.

When the billions of newly hatched flies first appear in the air they make a tremendous buzzing. A few weeks later, when they die, their bodies are sometimes disagreeably numerous.

While laying her eggs in twigs and small branches, the female uses a sharp instrument called an ovipositor and the puncture caused by this instrument is the principal damage. When many punctures are made on a twig it may become weakened and fall to the ground. This makes it easier for the hatched out grub to reach the earth, but in any case it would crawl down the tree and reach there. It enters the ground near some rootlet.

Under ground the grubs molt four times, the first time after one and a half months, the second two years later, the third two years later, and the fourth three or four years after that. In this stage it is known as the larva or active grub. During the remaining three or four years it is a pupa.

U. S. Air Fleet Goes to Junkdealers.

There are now at the disposal of this government 7580 training airplanes located at training fields in this country, all conceded first-rate machines, good for several years of peace service and for educating flyers, according to Edwin C. Hill, in Leslie's. There are, or recently were in France 6334 service and training planes from which little of use could be expected for several years after the war's wear and tear, cost of transportation and other obvious causes. But it is a fair assumption that Uncle Sam has a stock of at least 10,000 airplanes, worth at least \$10,000,000, probably much more. Even an administration bureau is expected to comprehend that there is an equipment inestimably valuable for the training of American fliers for peace employments, for the great air commerce that is just around the corner of time. Is that what they are contemplating? No, indeed. The present national equipment is offered to junk dealers at ten cents on the dollar and less—much less than when the philanthropic vendors deliver the goods free of charge to the buyers, transportation charges will eat up about all the proceeds, and if Uncle Sam derives one cent on the dollar he will be a lucky old gentleman.

So much for that. How about the specially selected spruce and veneers for which the government ransacked the forests of Maine and the North-west for whose sake it even placated the I. W. W., and which it paid millions on millions? Wouldn't you think reasonably that Uncle Sam could store this 50,000,000 feet of spruce and 50,000,000 feet of veneers against a time when, as is absolutely certain to arise, he could use it? A time of need when he wouldn't have to dig down into his pocket and again pay war prices?

Well, you would guess badly again. This costly material goes on the market at junk prices. Then there are 7,000,000 yards of airplane fabric to go at dumping prices, though it cost like silk out of China. And piled also around the auctioneer's block are millions of spare airplane parts and motor engines and innumerable details of equipment to spend two billions on a frantic effort to give sight to an army sent blind to the battle line.

If one of the very greatest of Yankee inventions, the heavier-than-air flying machine had been a device of the devil, it could not be in less favor than it is with the administration in the middle of March, 1919. The labor problem is obvious. The government's wrecking program purposes to throw out of work perhaps 200,000 highly skilled mechanics at the very time when tremendous employment problems due to the demobilization of nearly 1,000,000 soldiers must be solved wisely. If the slight drafts of Satan are not to be paid.

What is going on over there across the Atlantic in the tight little Isle is exactly the reverse of what is going on over here. The British are straining every nerve in building for a future which for them must mean air supremacy as well as sea command. They see that within a few years, certainly within a generation, vast commerce will sweep along the air lanes and they purpose to lead in that commerce, as for years they have been foremost in the ports of the world.

Re-Verses.

"Does Scribbler get any returns from his poetry?" "That's all he does get."

FOR AND ABOUT WOMEN.

DAILY THOUGHT. Jealousy lives upon doubt, and comes to an end, or becomes a fury, as soon as it passes from doubt to jealousy.—La Rochefoucauld.

Any mother who loves music and has studied enough to play fairly well can give her children their first lessons. It is indeed a great advantage to have mother teach, for music will thus become a part of the daily life of the home and prove invaluable in aiding the growth of the children in many ways, besides developing a happy companionship.

Most children love music. But how often is the love of it killed by inadequate teaching? How shall we begin? Bobby is eight or nine years old and has asked to be taught music. You are eager to teach him.

First choose a time of day when you and he are generally at leisure and rest, and have a short lesson at that time every day. Keep to this arrangement, for it forms a habit of regular work, which is of the greatest value both musically and otherwise. What is music? This question ought to form a part of the very first lesson, and without actually giving the answer, lead Bobby to feel that music is a language of sound, and that when we play, we must say something that we feel.

In our new education, we are going to let the children grow and develop, and not force facts into their mind, so that the main thing is to "let him" or "make him" but to "let him." After a little friendly conversation, play a low, then a high note and ask Bobby to tell you with closed eyes which it is, high or low. Have him play the C scale, one tone at a time. Finally, give him a sheet of music paper or music blank-book and let him write the notes you have played and he has sung.

It is better to start out at once with both treble and bass clefs, and to give the child a clear mental picture of the two staves and clefs as unity and not separated. "Grow-ups" complain to me that they cannot easily read the two together because they have been taught first one and then the other. Have Bobby write middle C on an added line placed between the two clefs and connect it with both the C which is next above in the treble clef and the C next below in the bass clef. In this way he will get an actual picture of the connection between the two clefs, and realize that the C added line either above the bass clef or below the treble clef is one and the same note.

Ask Bobby to look at this picture intently—close his eyes, and see it with his minds eyes. He will do it very readily. Explain to him that when he looks at anything very thoughtfully a picture is made in his mind which he can depend on as just as surely as though he had put it away in a desk drawer. Have him visualize everything he does a little each day. I should say that this would easily constitute the first lesson—with perhaps the song, sung by mother and Bobby to end with.

The next lesson comes on the following day at the same time. Begin by having Bobby repeat yesterday's lesson—just what he learned and wrote. After the review is finished, tell Bobby to listen very intently while you play the C scale, one tone at a time, C-d-e-f-g, up to C. Ask him whether one tone is like the last, or different. He will naturally say that each tone is different, until you get to the second C, which he hears as the same as the first note, but higher. Go back and count the tones, and after that the same tone as the first repeated, only higher up.

Let Bobby pick out the scale himself and sing it as he goes along. Alas! his little fingers are like pokers, and cannot goup with the scale smoothly at all. This leads to a little talk about how to control them.

What shall we do? Let us think of our body and how we control it. When you want to close a door, how do you do it? First you think, then you get up, walk to the door, put out your hand and close it. What made your feet take you to the door and your arm and hand close it? You obeyed your thought. Now how shall we get our fingers and arms to obey when we play? Why first think, and your fingers will obey you. Your body is your servant, ready to obey you.

Now there are two things to be considered in regard to piano playing a relaxed arm and a strong hand. To strengthen his hand have Bobby practice dropping the weight of the arm on one finger, keeping the finger firm and having it touch the keyboard full on the end. To relax his arm have him first drop it limply into his lap to get the feeling of limppness and then in the same way on the keyboard.

Now have Bobby play the C scale with each finger in turn, holding the arm limp and dropping the weight on to the finger as directed, until the proper relationship is established. This is one of the best exercises for producing beautiful tones.

Your Panama hat: does it need sprucing up? If so, here's a way one woman did it successfully. Take off bands and linings. Prepare a warm but not hot castile soap suds, to each spoonful of which has been added a teaspoonful of ammonia. Do not use more or it will yellow the hat. Now take a nail brush and scrub. Do not neglect the under side of the brim. Rinse of the first suds with a little clear water and clear again with a second suds. This time we are going to use two rinsings, the first of clear water and the second a quart of clear to which has been added a tablespoonful of glycerine and a few drops of blueing. Rinse using the nail brush to work this well into the straw. The glycerine prevents the hat getting hard and out of shape.

Pat with a clean, dry cloth and lay in the bright sun on a flat surface covered with a clean towel. When the hat begins to dry, shape it as desired, then let it alone for two or three hours, and it will be as nice and fresh as when new. Chains of beads in wood or china, in all colors of the rainbow, are freely used as a finish to a gown; one, for instance, is made out of alternate black and bright blue crochet beads.

FARM NOTES.

—Lots of milk makes big lambs. —A little pinch of ginger in hot milk will help to put life into a weak lamb.

—Give the roots of any plant set plenty of room and then make the soil firm over them. Leave the top soil loose.

—There is nothing better than good neatfoot oil for harness leathers. Mineral oils may have a damaging effect.

—Now that we are no longer confronted by war emergencies, crop rotations can be resumed. Put that idle acre to work.

—Some farmers never think of painting their farm machinery. They should remember that paint is not only a beautifier, but a preserver.

—It requires a good sum of money to buy a good cow today. The surest way to get a good one is to raise the weifers from the best cows, bred to a good bull.

—Farmers who planted soybeans in their corn the last two years obtained excellent results by hogging down the crop. This meant a great deal less tankage.

—There are a number of satisfactory pasture mixtures, but the following seems to be a favorite: Red clover, 3 quarts per acre; alsike clover, 1 quart per acre, and timothy, 4 quarts per acre.

—The best flavored pork is obtained from feeding skim milk. Next to this corn, barley, oats, peas and wheat produce good meat. Potatoes, the by-products of flour mills, beans and the like are not so desirable.

—The apparent prosperity of French, Dutch and Danish farmers, who consider themselves rich if they own 10 acres, is due largely to their frugality and systematic abstinence from luxuries. The average American family, especially if city bred, has too many wants to be supplied by the income from a 10-acre farm.

—A recent statement made by the War Department shows that during the war 67,948 animals were sent across the sea. This huge number included 5489 cavalry horses, 33,396 draft horses, and 29,063 mules of all description. Out of this number of animals only 600 were lost in transit.

—Apple trees should be planted 25 feet apart. The usual method of preparing land for root crops is to plow about seven inches deep in the fall and double disk and harrow it thoroughly the following spring. It is considered advisable to subsoil four or five inches deeper than the ground is plowed for deep-rooted crops, especially where the ground has been plowed at the same depth for several years.

—Besides killing most of the corn-eat worms in the soil, early plowing will kill cornstalk borers, the corn-root worms and several other corn pests that annually take about half the profits. It may be necessary to plow the corn land again later to kill the weeds, but this will pay in the increased yields and the lesser amount of work needed to keep the weeds down.

—The cost of producing milk in Ohio was found to be last year \$3.02 per 100 pounds for 4.3 per cent milk, or \$2.75 for 3.5 per cent milk. The total cost of keeping a cow was \$209.22 and her average production was 5884 pounds of milk. The cost of production ranges so widely from month to month that a fixed price for several months in advance is not fair to either producer, distributor or consumer.

to 30 feet apart each way and plum and peach trees 16 to 20 feet apart. One-year old trees should be selected for planting, although in the case of the apple, sour cherry and pear, two-year-old trees will usually transplant successfully if they have not grown too large. The trees may be planted either in the spring or fall. They should be set just about as deep as they stood in the nursery. As soon as they are planted the tops should be pruned back somewhat.

—Arsenate of lead is one of the best poisons for bugs. It can be used on any crop, has a high-killing power, sticks well and does not burn the foliage. Extensive tests at the Wisconsin College of Agriculture have led them to recommend the arsenate of lead above all other poisons, such as Paris green, arsenate of zinc and calcium arsenate. Paris green burns the foliage. Arsenate of zinc should not be used on any crop. The calcium arsenate has a lower killing power and a tendency to burn the leaves. If Paris green or calcium arsenate is used, add an equal amount of good air-slaked lime, which will prevent the burning. For potato bugs use the arsenate of lead at rate of 2.5 pounds per gallon of water and of arsenate of zinc, 2 pounds. Apply when the bugs begin to hatch.

—The fastest and cheapest gains by pigs are made before weaning time, so ordinarily it will pay to keep the small pig growing as rapidly as possible. The sow should, of course, get some good milk-producing feed, and she should be fed to her full capacity as soon as the pigs are old enough to take all the milk she will give. It will not pay to limit the feed at this time, since the pigs make the most economical gains from feed fed through the sow. When the pigs are about a month old they will be able to use more feed than that obtained from the sow, even though the sow is properly fed and a good milker. As soon as the pigs will eat, which is usually at four or five weeks of age, they should be fed separately from their dam. They should have access to a small pen where the sow cannot go to receive their feed. Skim-milk fed in a shallow pan is very good for them. The pigs may also be taught to run in to the creep for feed by allowing them some rolled or corn. As soon as they begin to eat well a slop of milk, some shorts, a little bran and some linseed oil meal or tankage, fed along with the corn, will make a ration which, with proper exercise will prevent thumps or scours. A good ration for young pigs is made up of four parts by weight of corn, four parts of shorts, one part of bran, and one part of tankage. As the pigs grow older the corn may be gradually increased until the amount has been doubled. In addition to proper feed, however, the pigs must have plenty of sunshine and exercise. These things cost little to supply and are absolutely necessary for best results.