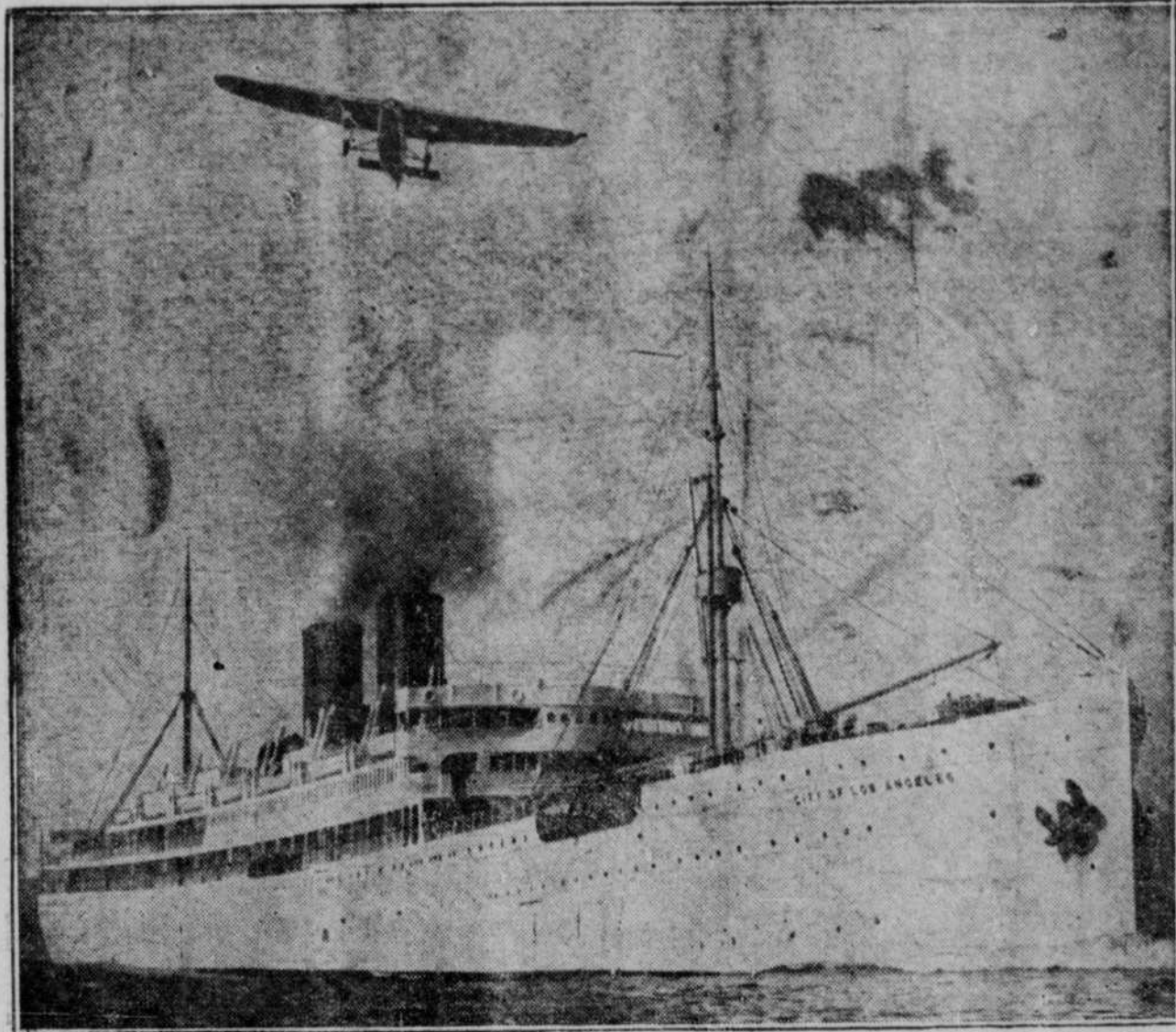
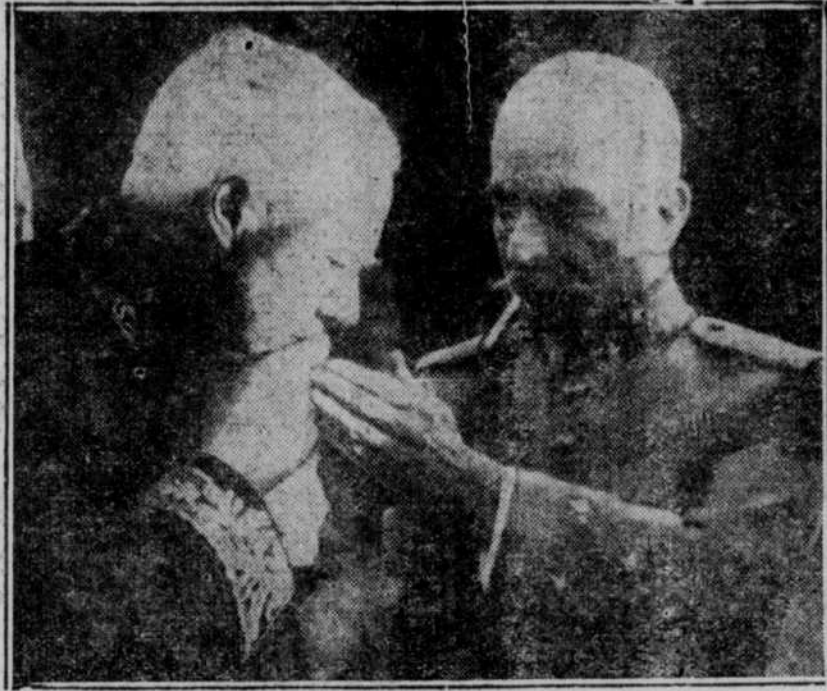


Speeding the Mail Off San Pedro



Plane to ship transfer of mail is attempted off San Pedro, Cal., with unhappy results. The sack dropped from the plane missed the ship by twenty feet, but was retrieved and went damply on its way toward Honolulu.

A Little Light Diplomacy



A rather unusual picture, in which the British envoy is shown receiving a flame for his cigarette from President Carmona of Portugal during a recent reception in Lisbon.

High Finance



Saul Singer, vice-president of Bank of U. S., who, under grilling of Max Steuer, conducting probe into tangled affairs of closed New York institution, told the inside story of how the bank paid \$5,000,000 debt to itself with its own money.

Girl Pilot Injured When New Plane Upsets



Miss Aline Rhonie, 21-year-old society aviatrix, was slightly injured when she made a forced landing in a ploughed field at Norwich, Conn. Miss Rhonie was doing experimental cross-country flying in her new \$15,000 plane when she got lost in a thick fog. In making the forced landing her landing gear fouled in the soft soil and the machine nosed over.

Looking Into the Future



His sub-ice craft Nautilus nearly ready for trip under the Polar cap, Captain Sir Hubert Wilkins may be excused the faraway look as he clambers from the conning tower after tour of inspection at Camden, N. J.

Anarchists Blamed for Argentine Bombing



Although the shell of the car and three persons were killed, seats remained almost intact after bomb had been exploded in this coach at Buenos Aires.

Fashion Foible



Fashions for resort wear and early Spring costumes are being shown in monotonous, plaid, checks and a variety of novelty weaves. Above Miss Maureen O'Sullivan shows a skirt of one of the newly-arrived styles.

Mrs. John Coolidge Honor Guest in South



With her husband and parents, Mrs. John Coolidge, wife of the ex-president's son, is vacationing in St. Petersburg, Fla., where she has been the honor guest at many social functions, including the bridge-breakfast at which this picture was taken.

Society Beauty Ends Life Over Love Pact



Mrs. Henrietta O'Kelly loved a man. The man was Dr. Lee De Forest, radio genius. Love soured, so she sued the doctor. The suit hadn't come up yet, so the well-known society divorcee took an overdose of poisonous drugs, endured terrible agony for six hours and died in New York City.

Prince Renounces Throne to Marry



Prince Linnert, grandson of King Gustav of Sweden, wants to marry Miss Karin Nisswant, daughter of a prominent Stockholm industrialist, so he has renounced his remote rights to succeed to the throne. He is the son of Gustav's second son.

OF INTEREST TO FARMERS

THE PERFECT RATION

Ideas of what forms a complete ration for livestock have undergone profound changes during the last few years. Through recent discoveries in animal nutrition, we know today that rations which were considered highly satisfactory in 1915 can be radically improved. At that time the first vitamins had just recently been discovered. It was still believed, however, that for efficient stock feeding primary attention need be given only to the amounts of digestible protein, carbohydrates and fats supplied in the rations which were fed. Now we know that quality in protein is fully as important as quantity. We also know that a lack of a single vitamin, among the several that have been discovered, may not only make a ration inefficient, but may even injure the health of farm animals. Furthermore, we know that rations may be very unsatisfactory and even dangerous if deficient in minerals. It has, of course, been recognized for a long time that air and water are just as essential to animals as are the food nutrients. However, there is no difficulty in supplying these two simple needs. Not all classes of livestock require the same proportion of the three one-time essentials—proteins, carbohydrates and fats. Horses at hard work require but little protein, but need an abundance of feeds supplying energy. As carbohydrates furnish energy at least cost, horses are fed chiefly on carbohydrate-rich feeds, such as grain and hay from the grasses. The cow milking heavily needs an abundance of protein. Cattle and sheep, which chew the cud, can make larger use of roughage than can the pig, which has a digestive tract much like that of a man. The ration for cud-chewers, as well as for the horse, can be bulkier than that of a pig. However, a small amount of alfalfa or clover hay is the best insurance against a lack of vitamin in the winter feeding of swine. Because the pig is fed so largely on cereals, it is more likely than the other animals to suffer from deficiencies in the ration. The chief sources of carbohydrates are the cereals. In this respect corn is king. It is pre-eminently a carbohydrate bearer, but is low in proteins and minerals. Other carriers of carbohydrates are wheat, barley, oats, rye, the grain sorghums, the millets, etc., as well as the hays and fodders. In short, the matter of carbohydrates is no problem in feeding; the farm crops ordinarily grown supply enough and to spare of carbohydrates. Nor is the supply of fat much of a problem in rations. Body fat and the fat in milk can be made by animals from the carbohydrates, the fats, or the proteins in their food. Ordinarily, the food carbohydrates are the chief source of body fat and milk fat. Recent investigations indicate that a certain minimum amount of fat may be essential in rations, this small amount of fat apparently having special functions which can not be performed by carbohydrates or proteins. However, it is probable that all ordinary livestock rations which are efficient from other standpoints will contain a satisfactory amount of fat. As to protein, it is not stretching facts to say that protein is the heart of the ration (particularly in feeding dairy cows, swine and poultry) so far as these three classes of nutrients are concerned. When I say that protein is the heart of the ration, says a feeding expert, I am thinking of it as more likely to be lacking than carbohydrates or fat. Why is that? Because most farms do not grow much protein. The cereals, which are so rich in carbohydrates, are relatively short on protein. This deficiency is easily made up by feeding protein supplements, ready mixed or home mixed, made up of such products as linseed meal, cottonseed meal, corn gluten feed, soybean meal, peanut meal, coconut meal, etc. These protein supplements are fed along with home grown feeds. Hay made from the legumes, such as alfalfa, clover, soybeans, cowpeas, etc., contain much more protein than hay from the grasses, such as timothy. Hay made from grasses cut early contains more protein than hay from grass cut near maturity. The dairy farm that grows alfalfa will need to spend less for protein supplements than the one that grows timothy or corn fodder for dry roughage. While not generally considered a food, minerals are so important in the ration that if animals are fed an artificial diet feed entirely from minerals they will starve, and sooner than when no feed at all is given. Every vital part of the animal body contains mineral. Certain so-called diseases of animals, such as posterior paralysis of swine, hairless pigs and goiter in lambs, foals and calves, are due to the absence of essential minerals in the ration. The common feeding stuffs contain all the necessary mineral salts, but not always in large enough amounts. The hays and fodders, as a rule, contain more minerals than the grains. The most essential minerals are common salt (sodium), phosphorus and iodine. Just recently the importance has been discovered of iron and copper in preventing anemia, a kind of thumps, in suckling pigs. All classes of stock require more salt than is present in feeding stuffs in most regions. Roughages of the legumes, such as alfalfa and clover hay, are always rich in lime. Indeed, furnishing an abundance of good legume hay is the best way of supplying plenty of lime to dairy cows, beef cattle and sheep. Deficiencies of lime can be made up by using ground limestone, marl or ground shell. Most of the feeds that are rich in protein, such as the oil meals and cakes, wheat bran and wheat middlings, are rich in phosphorus. The cereals are fairly high in phosphorus, though they are very low in lime. Straw, beet pulp, potatoes and molasses are low

in phosphorus. Both lime and phosphorus can be supplied by bone meal, bone flour, or bone black. Only traces of iodine are necessary to prevent goiter in livestock and to insure against hairless pigs. In most districts of the United States, especially near the ocean, there is no lack of iodine in ordinary rations. In certain sections of the interior, especially in the Northwest, there were severe losses of livestock due to goiter, before it was discovered that supplying a very small amount of potassium iodid or sodium iodid would prevent such troubles. Fish meal and kelp are rich in iodine. Proper ventilation is very necessary. It has been shown that without an adequate system of ventilation the humidity of the air, or the proportion of moisture, will be so high that the stock will suffer discomfort and be apt to contract respiratory diseases. Also, foul odors will be present. What's more, the excessive moisture will soon rot out the lumber in the stable. The most that need be said about water is that livestock should have all the fresh water they want, whenever they want it, and in cold weather the water should not be too cold. Otherwise, feed must be burned in the animal's body to heat the cold water taken in. Moreover, if the water is too cold in winter the animal will not drink as much as it should. Finally we come to vitamins—the latest substance to earn a place on the list of essentials in a complete ration. In terms of nutritional history, it was only yesterday that vitamins were discovered. Now the known vitamins, starting with A, exhaust the first seven letters of the alphabet. Important as are the vitamins, their composition is unknown. The absence of the so-called vitamins results in pathological conditions known as deficiency diseases.

ENLIST THE CAMERA

A farm business record is essential if the operator expects to make profitable adjustments from time to time. Such a record should include a complete inventory at the beginning and at the end of the year; it involves keeping a daily account of receipts and expenses; and it may provide a detailed summary of the man labor and horse work performed from week to week. Keeping records is not the most attractive task. Why not create a picture story to supplement these figures and thereby stimulate a constantly increasing love and devotion for the farm enterprises? Let us consider briefly some of the things which might add to the farm bookkeeping record. How about a picture sketch and history of the crops grown during the year? Attention can be focused upon three or four major crops. Pictures can be taken to show the condition of the field at planting time, differences in crop growth due to soil treatment, equipment used in preparing the land, cultivating the crop and the situation at harvest time. Frequently our interest centers upon the exceptional crop and there is a tendency to accumulate camera pictures which emphasize this feature. Occasionally a poor crop may carry a picture lesson, but these are rarely remembered. A picture showing the results of this failure may help in future years to correct a deficiency in our operation plans. Livestock pictures appeal directly to most of us. If we are producing registered livestock, we may use our best photographic records for advertising purposes; if we are giving direct attention to feeding, our pictures may be designed to show the types which are purchased from year to year. They will also indicate our success or failure in handling various types. The writer happens to be located in a lamb-feeding area, consequently during the winter season it is a common thing to see large numbers of pens containing several hundred lambs. When the lambs are purchased and placed in the feedlot the picture record should be made; at the end of the feeding period we should plan to secure some good photographs. These prints, when filed with purchase and shipping records, will furnish concrete evidence of the results for the season. A picture record of equipment and feed used will make the story complete. Our most entrancing series of pictures should center around the farm family and the farm home. There is no better way of preserving a story of the activities and development of the children than by using a camera systematically. As the boys and girls grow up on the farm they associate themselves with 4-H club and F. P. A. work, and they are given definite assignments to plan and carry forward. There are therefore untold opportunities for using the camera in order to trace and record progress in accomplishment. On every farm changes are made from time to time in the farm home; perhaps a new house is constructed, or it may be that the old house is remodelled. These changes and improvements should not be overlooked by the camera. And finally, in these days of the automobile, the members of the family look forward to the summer vacation with its trip to some new and historic place, or to a vacation in the mountains or on the lakes. We cannot afford to permit one of these periods to pass without securing our full quota of pictures.

WHAT MAKES BIG COWS?

There can be no quarrel with the statement, "Within the breed the big cow wins." But we must not miss the essential point, and that is: If big cows are wanted, there must be liberal feeding of a complete ration from the start. Undersized heifers are not likely to reach the size their breeding permits if they are fed scant rations until after the calving. Keep the calf fat on the growing stuff and you will be paid back in results later.

KEEP GOOD QUEENS

Plans should be made now by every honey producer for stock improvement in his colonies. The value of a good queen can hardly be estimated, although experiments conducted 10 years ago indicated that a high type of queen was worth \$18. It is interesting to note that some of the larger producers who are keenly interested in the items of increased efficiency in production, are paying more attention to the quality and ages of their queens. It has often been suggested that producers give a fair trial to perhaps the Caucasian bee or the Carniolan bee. The Caucasian bee

THE BEST FERTILIZER

Bonemeal is excellent for vines and fruit trees, and three or four ounces may be applied to the square yard.

Barley is becoming increasingly important as a feed crop in the corn belt.