

Javanese Women on the Way to Market.

(Prepared by the National Geographic Society, Washington, D. C.)

AVA, lying far off in the eastern seas, almost a world apart from Europe and America, has emphasized the Twentieth century's quickening of communications and the easy flow of ideas by recently having its Bolshevist troubles. These seem, however, to have been pretty well

The very recent emergence of the Javanese from serfdom no doubt increases the desire for greater freedom among the small group of the educated; but the close association of the vast mass of the uneducated with the soil—a virtual peonage—is a powerful force toward conservatism.

Java is a favored isle in many ways Its entire area, equal to that of New York state, lies within nine degrees of the equator. Java is the richest of the Dutch East Indies and also the most densely populated; the number of inhabitants amounts to as many as 1.000 per square mile in some districts. Aside from the sprinkling of Europeans and Chinese, the native population numbers more than 30,000,000. These all belong to the Malay race the religion of Islam.

Batavia, on the low-lying north coast, is the capital of Java as well as its metropolis and the great emporium for trade among the Islands and between them and the mother country. The Netherlands. It is a great sprawling town with numerous warehouses to take the place of the "factories" of the early days of Dutch activity in the East. There are canals, too, in true Dutch fashion, in the old town. Few Europeans live there now. It is given over almost wholly to trade. tion for Javanese, Chinese, Indians. Arabs and Malays. Farther inland on higher ground lie the quarters of Europeans, chiefly Dutch, of course. This white man's section has broad avenues and low houses embowered in trees and shrubbery.

There are parks, green and colorful with the luxuriant growths of the tropics. Near one of these is an imposing building of classical design. the Museum of the Batavian Society of Arts and Sciences. The copper elephant on a pedestal in front of the building was a gift from the king of Siam, presented on the occasion of his visit some years ago. This museum contains the finest ethnological collection of any institution in the Far East,

Good Hotels for Tropics.

The rising sun warns the traveler of the approach of noon and he turns down a side street in search of the welcome coolness of 'a hotel. As a rule the hotels in Java are clean, well kept and admirably designed to meet the requirements of a tropical climate. They usually consist of a main building, openly constructed, so as to admit the passing breeze, with wings containing the sleeping rooms. charges in Java are much cheaper than in other parts of the East. The Java hotels furnish a great treat to gourmets-that famous gastronomic institution known as the rijst-tafel or

One takes his seat in a spacious pavilion and is brought soup by an army of beturbaned Malays. Then large, deep plates are brought, on each a supply of rice. On top of this basic stratum two inches deep the diner is expected to place an extraordinary variety of vegetables, curries, dried fish, eggs, fowls and meat flavored with a variety of peppery condiments

A sail of 36 hours from Batavia brings one to Soerabaya, the most important seaport in Java, with a good had slight need to concern himself harbor at the mouth of the Solo river. Ships anchor offshore and passengers embark in one of the native hoats and make their ways amid the crowded shipping to the landing stage.

Although commercially of great importance, Soerabaya is hot and presents few attractions to the visitor. There is an air of bustling activity in the streets which seems to verify the city's reputation for alertness and ascendency in the mechanical arts.

A two hours' ride by rail from Sogra-

baya through a densely tropical region lands the traveler at Pasourouan. There he may get the real flavor of back-country travel by entering the curious carts of the country called dos-a-dos, and set out for the delightful mountain resort of Tosari, Java's Simla. Ever ascending, the road leads past miles of rice and sugar fields to a pretty little hotel on the lower slopes of the mountain range, where one may rest. The remainder of the climb to Tosari is too steep for

used for the final stage of the journey. Tosari is a delightful resort. A sojourn of several days in the salubrious air of the mountains renews one for life or travel in the plains. A walk along the single street of the village gives some idea of the mode of life of these mountaineers, who are quite distinct from their neighbors of the lower valleys. Here are found the homes of the Tenggerese, that hardy tribe who, at the time of the Moslem invasion, retreated to these mountain strong holds and successfully defended their homes against the invaders.

vehicles, so horses and palanquins are

The lofty location of Tosari, perched on a flank of the Tengger massif at and almost without exception profess an elevation of 5,480 feet above sea level, invites one, by its invigorating air, to undertake walking trips and mountaineering excursions, which in other parts of the island would be out of the question.

Lots of Volcanoes.

Two of these jaunts which are most interesting are the trips to the crater of the active volcano and to the summit of Penandjaan, a loftler eminence which commands an extensive view of the eastern part of the island.

Volcanoes and Java are subjects hat cannot be divorced. Volcano made in the first place, and constantly being remade by them, Java has more volcanoes than any area of its size in the world. Estimates of the active and extinct craters range from 100 to 150. Everywhere in Java, in the huge crater lakes, in fissures that now are river beds, even in ancient temples, half finished when interrupted by some flery convulsion, are evidences

of cataclysmic forces. The "treacherous Klot," as the natives call it, all but wiped out the town of Britar in 1919, but even its devastation was mild compared to the violent upheaval of Krakatoa in 1883. Then Mother Nature turned anarchist and planted a Gargantuan infernal machine on the doorstep of Java. Krakatoa is a little island in the Sunda strait, between Sumatra and Java.

One of the most fascinating spots in all Java cities is the market. The Dutch have roofed most of them over, and under the tile shelters the natives display baskets of rice, bunches of bananas and leaves bearing preparations of betel, peppers and ground coconut. In every Javan town the market, or passar, is a center of interest.

If your purchase is small enough to warrant wrapping you get a neat package enclosed in banana leaf, which has been called the "wrapping paper of the tropics," fastened with a cactus thorn.

Java is extremely fertile-made so by its numerous volcanoes, those much-maligned beneficent forces. The entire island is the most luxuriant garden spot in all the world. It is so densely populated that its inhabitants must till the soil, and cannot pluck their food from trees as in some South Sea isles. But they do live by a minimum of labor and they require for shelter only a roof over their heads to protect them from frequent rains. The result of these conditions has been that the present-day Javan has with architecture, making machines,

or household decorations. Though the modern Javan is not concerned with architecture the island people of thousands of years ago built temples and monuments which today are objects of wonder to the student and fragments of beauty to the artist. Notable among these is the Gre. t Buddha, or Boro Boedoer, s mighty terraced temple containing a massive image of Buddha and a re markable series of bas-reliefs,



DAIRYMAN MUST BE GOOD FARMER

Successful dairymen need to be just as good farmers as they are dairymen, it is pointed out by W. J. Fraser, dairy farming authority of the college of agriculture, University of Illinois. This is true because to make a profit under modern conditions dairymen must make their farms supply the feeds for their dairy herds, he explained. It does them no good to know how to feed profitably if they do not have the feed, he added,

"The dairyman's rotation plan must dovetail into his dairy plans before he can get the greatest possible return from his farm. The rotation for a dairy farm must be planned from three standpoints: (1) Feed. The dairy farm rotation must supply proper quality and quantity of feed the year around at the least expense to the dairy herd. (2) Land. The rotation must use land to the fullest advantage through the use of the most profitable crops, the growing of enough legumes to maintain and increase soil humus and nitrogen in order to maintain soil fertility and through diversifying crop returns so as to minimize-failure of any one crop. (3) Labor. The rotation must provide for labor distribution to prevent burdensome peak loads and to utilize labor available throughout the year. This is especially important to the dairy farmer because he has so much work with his dairy herd.

Demands for the dairy herd for legume feeds, demands of soil for nitrogen supply, and the need for the most profitable use of land and labor dovetail together so that legumes are the basis of a good dairy rotation.

On most soils limestone is an absolute necessity before legumes can be grown, yet is a minor item of cost compared to returns. Dalrymen often buy alfalfa at \$25 a ton while \$4-to \$8 an acre in limestone would allow them to produce it at about \$10. Freight, baling and handling make purchased feed expensive.

The rotation is a definite business plan, providing as sure a return as possible year after year, and thereby reducing the gambling element in farming. It must be planned for a definite number of animals so that enough feed will be on hand every day in the year to keep every cow fed to the limit of her productive capacity. Fields must be of the same size so that about the same amount of feed is produced each year. Good legume hay, alfalfa preferred, and corn silage, are the foundation upon which the winter feed supply is based. One and one-half tons of alfalfa hay and four tons silage should be allowed per cow per year for the larger breeds.

Pasture must be provided each year. On tillable land three-fourths of an acre of sweet clover a cow is a good standard. Where untillable blue grass is available then the rotation must be planned in reference to it. Often it can be limed and sown to sweet No one rotation fits every worked out for each and every farm.

Young Calves Thrive on Skim Milk, Hay and Grain

Young calves will usually begin to pibble at grain and hay when they are between thirty and forty days old. These feeds should be placed available to calves at this age. As long as the calves are getting a liberal supply of skim milk and have access to good quality legume hay, the grain mixture may be composed of equal parts of whole corn and oats, or barley may be included. At forty days of age calves will be eating about one-half pound each of grain and hay daily, This amount should gradually be increased to where they are getting about four pounds of grain and three pounds of hay at one hundred eighty days of age in addition to which they should get from sixteen to eighteen pounds of skim milk daily.

Cows Need Protection

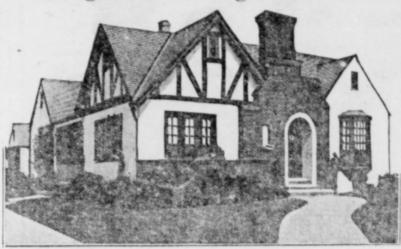
During Winter Weather Dairy cows need protection in the way of good housing and sleeping quarters during cold winter weather, says L. P. McCann, associate professor in animal husbandry, Colorado

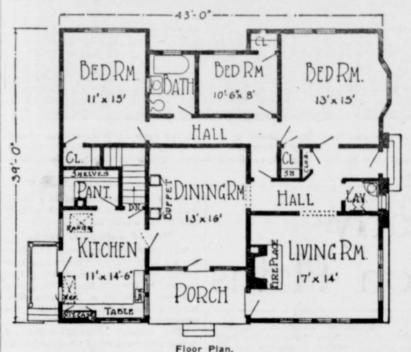
Agricultural college. Exposure to cold weather and storms means that the cows are consuming an extra amount of feed to overcome such exposure. Dairy cows do not have a thick coat of fat to protect them against the elements as do beef cattle and hogs, hence their need of more protection. Cows kept in comfortable quarters consume slightly less feed and produce a trifle more milk than those allowed to run in the open during the winter months."

Using Dusty Feeds

One reason for a lot of trouble from high bacteria as well as dirt in milk comes from the practice of feeding dusty hay or fodder before milking. Bacteria and germs travel in the air, and even small particles of dust carry many thousands of bacteria. When such feeds are given to the cows before milking, a large amount of the dust and dirt will get into the milk This will not only cause milk to spoli more quickly, but will be objectionable from the standpoint of sediment.

English Cottage Is General Favorite Among Discriminating Home Builders





By WILLIAM A. RADFORD

William A. Radford will answe uestions and give advice FREE OF COST on all problems pertaining to the subject of building, for the readers of this paper. On account of his wide experience as editor, author and man-ufacturer, he is, without doubt, the highest authority on the subject. Ad-dress all inquiries to William A. Radford, No. 1827 Prairie avenue, Chicago,

This seems to be a general favorite as to style of construction, judging by the number of similar designs which are now finding vogue among the architects, builders and house owners generally throughout the country. The appeal is undeniable. The bungalow pictured does not merely bring back to many who have migrated beloved memories of the old country, but to those who have always lived in America it suggests substantial, picturesque building, comfortable living, and a beauty which is real, because it is based upon sound good taste.

The combination of brick with timbered stucco, the chimney with its quaint chimney pots, and the distinctive windows lead us to look for simtlar quaintness in the interior. This can be made altogether a matter of individual taste. The floor plan is up-to-date and spacious, containing not less than three bedrooms besides the kitchen, dining and living room farm, but some one rotation can be The over-all dimensions are 39 feet by 43 feet.

The outside of such a home as this, to appear to the best advantage, needs the dressing-up value of tvy and shrubbery. There is, of course, the objection that the ivy is destructive, but we know of well-constructed stucco walls which have become tvy-covered without the least suspicion of disintegrating cracks. The color scheme is simple-a warm tinted brick, preferably reddish or brownish; brown stain on the timbered and window portions; on the gable cornices; and varicolored

The recessed porch leads into either the dining room or the living room. Suppose we take the door at our left. We are in the living room, 17 feet by 14 feet, with a fireplace and two sets of windows; three and four on two sides. There is a hall which we enter from the living room; it can take us to the lavatory, through the side entrance vestibule into one of the three bedrooms, or into the dining room. One criticism of this plan might be that too much space is taken up by the provision made for corridors. This is purely a personal affair. The hall which leads to two of the bedrooms might be eliminated, with access to them and the bathroom being had through the dining room. However, it is undeniable that the hall space as planned does make for priv-

The kitchen is well arranged, has a spacious pantry, and a refrigerator so placed that it is served through an icing door from the rear service

Naturally, one associates a building of this nature with low-beamed ceilinged rooms, and furniture dark with age. However, it is possible to enjoy the spirit of these, without any depressing actuality, for however picturesque an old house's timbered interior may be, modern ideas of decoration might look for more cheerful treat ment. We might compromise by mak ing the interior trim a dark-colored oak, or mahogany, or walnut, or staining some of the equally good lighter woods to get a darker color note. There would be cheerful paper patterns on the walls, for however gray English weather may be, the people who originated the cottages of this type make up for it by making their ome interiors as bright and cheerful 48 possible. Jacobean furniture would

go nicely in this house, and the window drapings could be more substantially heavy than usual; that is, for overdrapes one might utilize the heavler cretonnes, velvets, velours or broadcloths, in massy deep colors. But we would not suggest too much bright brass fittings for the fireplace; hammered brass or wrought iron does nicely, and does not take all the pleas ure of a fireplace away by exacting more work than we gain comfort out

Good Housing Elements

in Building of Homes Housing standards are both phys ical and moral, and the two are more

or less inseparable. Housing standards relate mainly to adequacy of shelter from the elements, light, ventilation, water supply, disposal of waste, privacy, space for play and family gatherings, arrangement and equipment affecting the amount of labor required for housework, appearance and general attractiveness. housekeeping, maintenance and constant improvement as the family's needs develop and its taste improves.

The last statement is not meant as an argument for continual discontent with the best that may be available at any given time, or that a house should undergo extensive alterations once or twice a year. It does mean, however, that a family which resigns itself to accept, as a matter of course, temporary "makeshifts" which it could be reasonably expected to remedy, loses in self-respect and suffers accordingly, It means that every family can make its home more attractive and livable by constant attention to matters of

Every child needs plenty of sunlight and fresh air, and is better off in a well-kept house with modern improvements, in which there is enough room for privacy and for the different members of the family to be alone when they wish.

Tells of Essentials in

Fire-Resisting House

Consider the structures of the ideal fire-resisting" house. First a foundation of concrete, well water-proofed and tied at essential points with rein-

forcing steel. On this foundation lay a two-story wall of cinders or concrete block or hollow tile for stucco base or brick, stone and tile for veneered walls. Floors of light "fire-resisting" construction as above noted and a roof of light steel shapes supporting gypsum concrete covered with slate or vit rifled tile roofing.

The windows should be steel case ment types or metal double hung patterns. The doors should be of laminated wood or hollow metal and the casing, base, etc., of pressed metal.

Certain details in construction hould be given serious consideration if certain materials are used. If concrete or cinder blocks are used for exterior walls it will be well to satisfy oneself regarding the waterproofness of these materials. They can and should be waterproof. A furred inside wall construction is a good scheme of preventing further difficulties,

Day of Small Home This is the day of the small house planned for comfort and convenience, not for ostentation. Heating and refrigerating plants, the electrical equipment, the plumbing system and the built-in features have contributed to place the star of the little house in the ascendency and to create for It an important and distinctive place in

· FARM · POULTRY

BAD VENTILATION BIG LIABILITY

A poultry house without ventilation is a source of trouble and a liability to the owner, authorities at the college of agriculture, University of Illinois claim

Proper ventilation is the changing of the air within the house without causing a drafty condition, and changing it often enough to take care of moisture. In other words, the ideal desired by good ventilation is a house free from drafts and in a dry con-

During winter months so many poultry keepers will make the mistake of closing their houses so tightly in an effort to get warmth that they will cause a stagnant air condition, and dampness will result. At no time during the year should the front of the house be entirely closed, and especially so if the pen is in any way crowded.

There are many schemes and mechanical devices made that will aid poultry-house ventilation, and while these have a value, the aim should be to establish conditions as efficient and fool proof as possible for getting fresh air into the house.

For the shed-roof type of house, the open front will solve the difficulty. This opening may have a rough weather protector of cotton, but a cotton screen is not necessary. Fresh air will never hurt the birds. Incidentally the open front will allow the birds direct sunlight on days of sunshine.

For the house with an A-shaped roof and which generally is wider than other types of houses, it would be advisable to put in a straw loft. The straw will insulate against cold and heat and will help to absorb moisture from the pen. It is advisable to have an opening in each gable end allowing for an air current over the straw. This is a very simple and efficient way of ventilating a house, and has the adventage of keeping the house cooler in summer and warmer in winter.

The one thing a person must guard against with a straw loft is the control of all mites and lice.

Pullets Hatched Early

Begin to Lay in Fall Early hatched pullets properly grown and matured will begin to lay during the fall and early winter, when fresh eggs are scarce and when egg prices are at their very highest point. It will make a great deal of difference in the returns from the flock whether the pullets lay fairly well during the winter or whether they do not begin to lay until spring, for in either case they will be consuming feed. Practically any pullet, whether late or early hatched, or even a very old hen, will lay during the spring season, but it is the early hatched pullets which must be depended upon for eggs during the fall and winter. The practice of hatching early as compared with hatching late will enable the poultry keeper to receive the very considerable added profit due to the production of winter eggs, and in many cases will make all the difference be tween loss and a good profit from the poultry flock; therefore, practice early hatching and secure winter eggs. It is very important.

Poultry Facts

Early roosting keeps the chicks from crowding into the corners.

Electric lights in winter is an artificial way of making things natural for hens, who do more work with longer days, . . .

Never put chicks of different ages

In the same coop or brooder unless there is a partition so that the tiny ones are separated from the older

Don't neglect grass for the young chicks in the brooder house. It supplies the vitamines necessary to health and growth, that can be obtained no-

Poultrymen are placing stress upon the need of early hatching and early production from the pullets.

Duck eggs can be hatched very successfully in incubators, and most incubator manufacturers furnish special instructions for the hatching of duck eggs with their machines.

It takes 21 days for hen eggs to hatch; 28 days for duck eggs; 30 to 34 for goose eggs, and 28 days for turkey eggs. The time may vary somewhat according to conditions.

Even in the best of hatches there are always some chicks that are not just right. Such birds should be disposed of at once.

Exercise, grit and green feed all have their place in the development of the growing chick, but they cannot take the place of sunlight

Sunshine is one of the necessities in successful chick raising. It prevents rickets or leg weakness, so common among chicks that are kept indoors during the early weeks of spring.