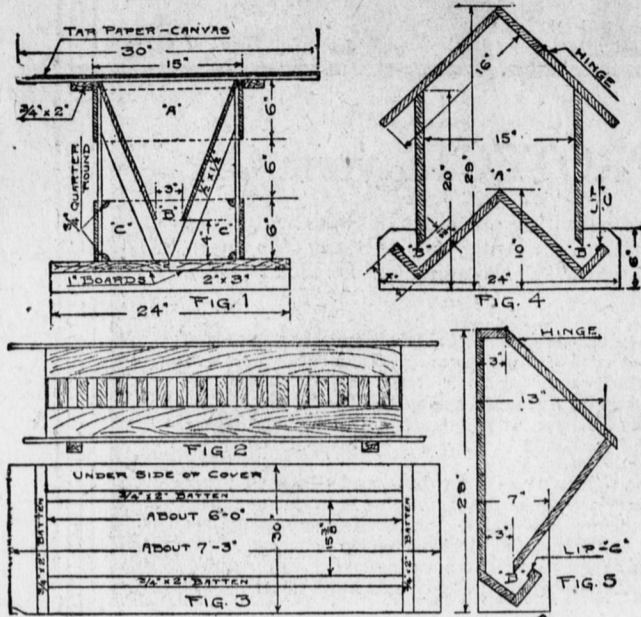


POULTRY NEWS

DRY MASH HOPPERS AND HOW TO BUILD THEM



PRACTICAL DESIGNS FOR FEED HOPPERS

They Must Be Accessible, Sanitary, Convenient, Non-Wasteful and Serviceable

For Best Results the Mash Must Not Be Allowed to Form a Compact Mass

BY ROBERT ARMSTRONG
Expert Poultryman and Writer

Almost every progressive poultryman agrees that the use of dry mash is the most generally satisfactory method of feeding chickens, from the two-day-old chick to the mature fowl. The dry mash is usually kept before the birds at all times consequently it is essential to keep the feed clean and sweet, easily accessible to the fowls and in receptacles that are convenient for the attendant to replenish. A number of practical designs for feed hoppers are described in this article with instructions on how to build them.

Successful, experienced poultrymen have long since realized the importance of feeding their flocks a balanced bodily requirements. No one grain is a complete ration, and even if such a grain were to be had, it would be unwise to feed it exclusively because

it would tire the appetite. A chicken's variety craves, variety the same as the human appetite, and if sufficient variety is not supplied the fowl's appetite becomes jaded and it fails to eat in large enough quantities to maintain a high state of productiveness.

When planning a system of poultry feeding two other factors must be given careful consideration: First, the cost of the ration, and second, the amount of labor involved in placing it before the birds. It is conceivable that a ration might be adopted that would give an unusually heavy egg production, but costing so much, either in the value of the food itself or the labor of feeding it, that the resulting profit would be insignificantly small. In other words a complicated system of feeding requires so much labor that few birds can be cared for by one man. Therefore, as a commercial proposition, it is quite obvious that the net profit per man is equally as important as the profit per hen.

Dry Mash a Big Saving

Dry mash, a mixture of various rations, which is to say, a food supply composed of various ingredients, carefully proportioned to meet the fowl's ground grains and by-products, is the most economical feed, not alone from the feed-bill standpoint, but in the labor involved in placing it before the flocks. And it also saves considerable wear and tear on the fowl's digestive systems. In the absence of

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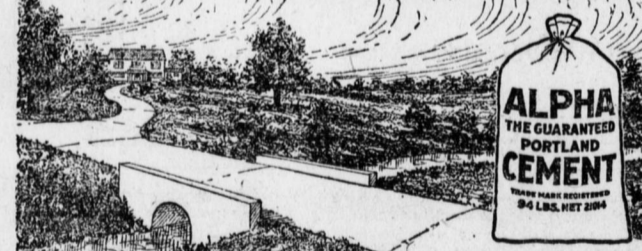
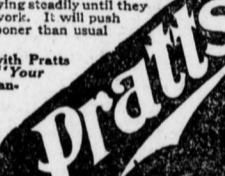
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CONCRETE FOR PERMANENCE

teeth the hen was given a gizzard for the express purpose of grinding solid food, yet it is generally considered to be more economical to have a part of the grinding done by power millstones. A heavy egg yield is an intensive process; hence it must be assisted in every way possible.

Still another virtue of the dry mash is the positive assurance that the fowls are eating a properly balanced ration providing, of course, that the mash is so compounded. Where whole or broken grain is fed exclusively, or in large quantities supplemented by a little mash feed, it is highly probable that some hens will eat an excess of corn, others wheat, and others oats. Thus the error of this method is apparent. In dry mash feeding the hen has little or no selection, neither can she be robbed of certain elements by her more voracious companions. She eats precisely what the attendant has prescribed for her—a properly proportioned compound of protein, carbohydrates and mineral substances required to preserve health and stimulate egg production.

Principles of Mash Hoppers
In feeding dry foods to poultry of any age, especially a dry mash mixture, success depends in a great measure on the receptacles used. There must be a constant supply, easily accessible to the birds, conveniently replenished by the attendant, adequate storage space, so as to obviate the necessity for refilling, and the contents must be kept dry, clean, sweet and appetizing at all times. Furthermore, the receptacles or hoppers in which the mash is stored and fed, must be non-wasteful and of such simplicity that they are easily cleaned and serviceable. If the hoppers are to be placed outdoors they must be proof against wind and rain, and if rats and mice abound the hoppers must be fitted with some means of closing them against these pests at night.

Next to keeping the contents clean, the most important feature about a mash hopper, and one that is frequently overlooked, is some provision to prevent the mash from going “flat”—that is, compressed into a solid, compact mass, either by its own weight or by that of a heavy grid, such as is frequently installed to prevent the mash from being trampled. The mash must be light and flaky or it will not be relished by the fowls. Chickens will eat a mash that is compressed, of course, just as we humans when put to necessity will eat distasteful or poorly cooked food, but they will not eat it in large enough quantities to meet the demands of heavy egg production.

In the three types of mash hoppers illustrated in the accompanying diagrams, all of which may be said to be automatic, in their action, they have been designed with the view to storing liberal quantities of mash, and at

the same time distributing it in a light, flaky condition. To accomplish this it will be noted that the method of distribution is from the bottom, and the greater part of the weight of the mash above is supported by the V-shaped sides of the storage compartments. In Fig. 1 the mash is stored in compartment “A”; it passes through the opening “B,” into a space on either side designated as “C,” whence it is eaten by the fowls. Only a small quantity of the mash accumulates in “C,” consequently it is bound to be light and flaky, since there is no weight on it from above. The mash stored in “A” will not fall through the opening “B” except as it is needed.

Fig. 1 is an outdoor type of hopper as will be seen by the wide water-tight cover, which extends far enough on all sides to prevent the entrance of driving rains. It also has a platform for the birds to stand upon, which keeps it off the damp ground. The same type may be used indoors in which case it is not necessary to build the platform nor the projecting cover.

Fig. 2 is a side elevation of the hopper showing the slatted sides through which the fowls eat. A quarter-round moulding is fastened on the inside of the slats to keep the birds from hooking the mash outside and wasting it. They are quite sure to do this unless prevented, and in the course of a year's time this apparently trivial waste will amount to many dollars.

With the exception of the bottom platform which is built of inch matched boards nailed across two pieces of 2 by 3-inch stuff, and the framing of the cover, which is 3/4 by 2-inch battens, the entire hopper is constructed of 3/4-inch or 1/2-inch siding, preferably white pine or similar light material and dressed on one side. Fig. 3 indicates the method of stiffening and securing the cover, which is laid on the top of the hopper or hinged to it. To make the cover water-tight a sheet of paper is laid over the siding and this is covered with canvas and later painted to preserve it. Although there is no limitation as to the dimensions, the writer has found it convenient to build the body fifteen inches wide, eighteen inches deep and six feet long. This type has been in use many years and always rendered the greatest satisfaction.

Mash Hoppers For Chickens
The designs for hoppers shown in Fig. 4 and Fig. 5 are intended for indoor use for chickens, although they may be easily modified for larger fowls and for outdoors. In Fig. 4 the weight of the mash is taken up by the inverted V-shaped bottom “A,” and in the type shown in Fig. 5 it is held by the sloping front of the hopper. In both types

Fine form and feathers make fine fowls, but the real secret in carrying off blue ribbons at the show rooms is in having the specimens properly groomed and trained. Many a splendid bird has failed to be placed, either because it was soiled and disheveled, or because it was wild and tried to pull down the cage in the judge's presence. Next week's article describes how to prepare birds for exhibition, and it will be of value to both veteran and amateur.

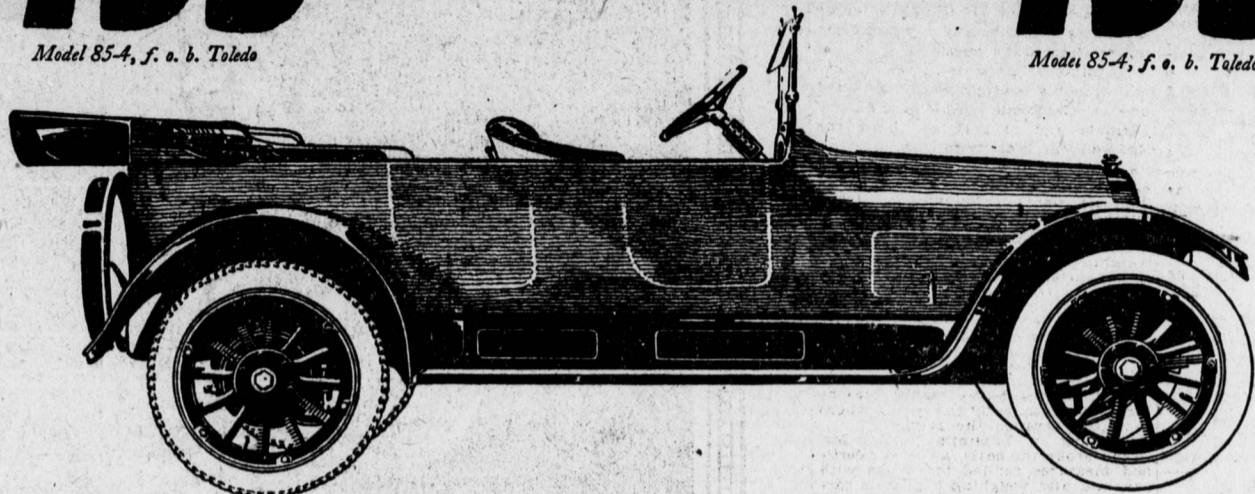
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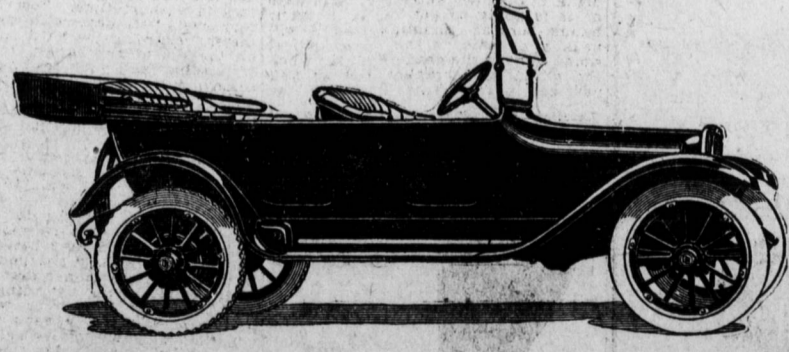
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