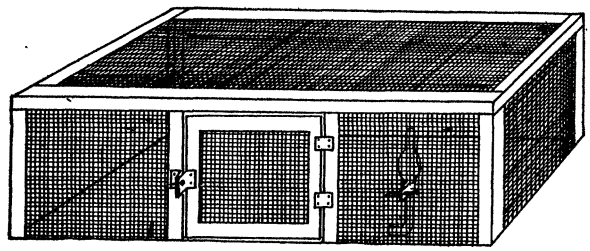
SCIENTIFIC APPARATUS AND LABORATORY METHODS

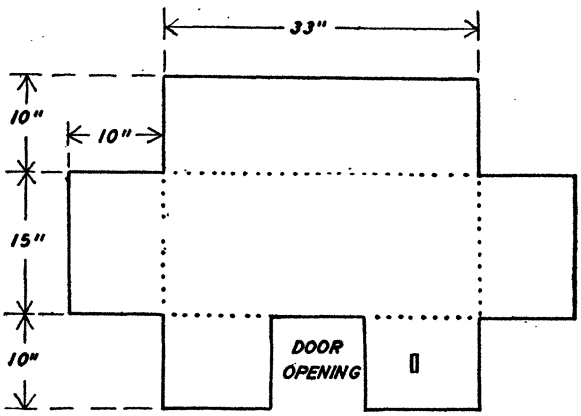
A SMALL ANIMAL CAGE WITH SANITARY FEATURES

BEING confronted with the problem of keeping a large stock of white rats in one corner of a general workroom in this laboratory, it was imperative that special attention be devoted to the sanitary features of the colony houses. Several standard types of houses were tried but none was found which would permit of easy cleaning so that odors could be avoided. The house which we have developed to meet this need should be of interest to other laboratories for three reasons: low cost, sanitary features and ease of construction.

The outstanding sanitary feature of the house is absence of seams at the bottom, so that the collection of soils in difficult-to-clean seams is avoided. All the



COLGATE SMALL ANIMAL HOUSE ASSEMBLED



PATTERN FOR CUTTING HARDWARE CLOTH
FOLD ON DOTTED LINES

walls of the house are constructed of hardware cloth with quarter-inch mesh which permits droppings to fall through the floor of the house where they are collected on drip sheets made from wrapping paper. The drip sheets are removed and destroyed three times a week.

The bottom and four sides of the cages are cut from a single piece of hardware cloth as indicated on the drawing. The top is cut independently and riveted to the frame last to facilitate ease of construction. The frame is made from strips of heavyweight galvanized iron an inch and a half wide which have been bent at right angles lengthwise through the midline. The corner bends of the frame are riveted and the hardware cloth is riveted to the frames, washers being used between the head of the rivet and the hardware cloth. Two hours' work will complete a house.

The houses are used in tiers, each house being supported by five-inch hooks which project from uprights at each end of the house. There are four hooks per cage. The sets of hooks are spaced vertically so that there is two inches clearance between houses, permitting the top of a house to be used to support the drip sheet for the colony above it. Solid boards for these vertical supports serve also to lessen drafts on the animals.

Every fortnight the houses are washed in hot oakite solution and rinsed. Coarse cedar shavings which can be secured at any pet shop are used for nests. Glass drinking tubes from the Emil Greiner Company are used. The food dishes used are of non-spillable type.

Six full-grown white rats are given ample exercising room in these cages, and for breeding special cages have been built after this same general plan but with two doors and a hardware cloth partition separating it into two compartments.

We have used this type of cage for more than a year with almost a complete absence of odor and with the time required for maintaining them in a fresh condition reduced to about ten minutes per cage per fortnight. Since they are galvanized throughout destructive rusting is avoided. The materials for a single cage cost about one dollar.

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SPECIAL ARTICLES

SOLUBILITY OF URIC ACID IN THE BLOOD

DURING the course of a prolonged investigation on the excretion of uric acid by the fowl, attention was attracted to the question of its solubility both in the blood and urine. Not infrequently urine of a fowl taken directly from the ureter is in the form of a clear or opaque mucoid-like material in which are usually found white lumps of uric acid. The mucoid-like material has given rise to the idea that the fowl's urine contains mucus, but histological examination of the kidney and ureter shows no evidence of any such mucous glands. Furthermore, if one allows a