Fanning Mill Sieves

Description and Numbers of Sieves Commonly Used

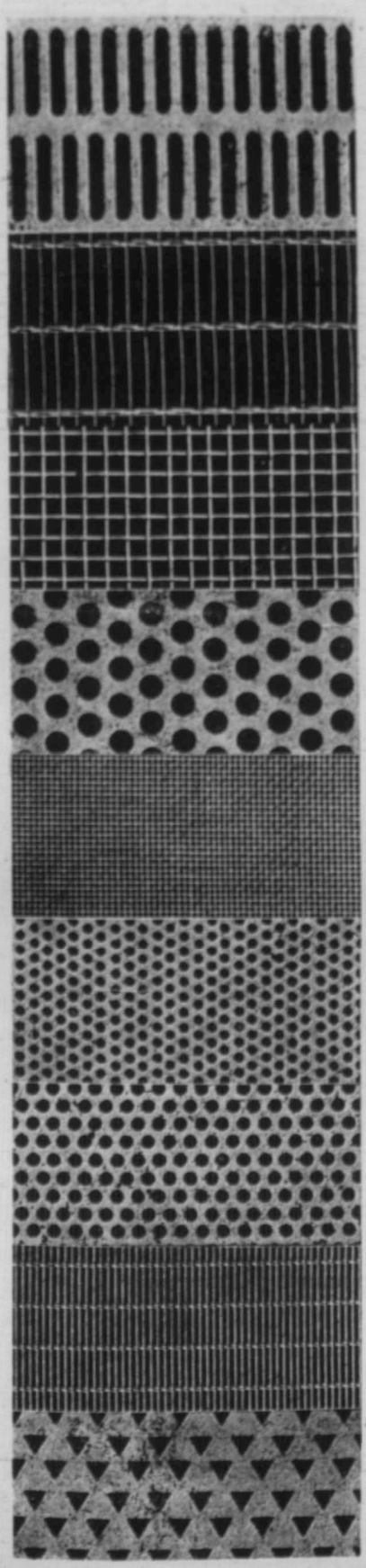
In The Guide of January 23 appeared an article by Seager Wheeler on Cleaning Seed Grain, in which fanning mill sieves were referred to by numbers. Some farmers have requested further explanation about sieves. The following information is based on a pamphlet issued by the Dominion Seed Branch, covering the subject.

Fanning mill sieves are of two general types, those made of perforated zinc and those made of woven wire. Perforated zinc sieving has either round, oblong, or triangular perforations. There are square and long-mesh woven wire sieves.

The diameter of the perforations in zinc sieves is usually given in sixty-fourths of an inch. For example, an "8" sieve usually means one with perforations 8-64 of an inch in diameter. The next smaller and larger sizes are 7-64 and 9-64, respectively, although half sizes sometimes occur. A similar system is used for the triangular and oblong perforations.

The mesh of woven wire is usually expressed by giving the number of wires to the inch each way; thus an 8 by 8 woven wire is one made of eight wires to the inch each way; a 2 by 10 contains two wires to the inch one way and 10 the other. The size of the opening will vary with the diameter of the wire used.

The numbers which manufacturers put on the various sieves supplied with their mills often have no reference to the size of the perforation or mesh of the woven wire of which the sieve is made. For example, a sieve which a manufacturer designates as No. 12 may not be a 12-64 perforated zinc or a 12 by 12 woven wire. It is not a difficult matter, however, to determine the size of the perforations or mesh with a rule.



A type of perforated zinc screen sometimes used for separating the "thin" kernels of oats from the plump ones. The exact size required depends on the variety of oats grown and will vary somewhat with the season. A screen with perforations ½ inch long and 5-64 inch wide may be taken as a standard.

This is 2 x 10 woven sieving. It is commonly used in the making sieves for cleaning grain. The long mesh sieving is to be preferred to the square mesh when the grain to be cleaned contains impurities which are long and narrow, e.g., chess in wheat. The square mesh is better for vetch and mustard. This type of screen is often used for oats.

The 8 by 8 square mesh sieve. Woven wire sieves are generally used as screens in cleaning grain. Two other square mesh screens, the 7 by 7 and 9 by 9, are also used, depending on the size of the grain and nature of impurities. In preparing grain for seed use a coarser screen than when cleaning for market.

This sieve with perforations 8-64 inch in diameter will hold the plump wheat and permit small weed seeds and shrunken wheat to pass through. A sieve of this kind with larger perforations, about 13-64 (approximately 1-5) inch in diameter, should be used as a riddle or upper sieve for wheat to separate oats and other impurities larger than wheat.

28 by 28 woven wire sieve, a useful screen for removing small weed seeds, such as chickweed, cinquefoil, plantain, shepherd's purse and worm-seed mustard from timothy. When the timothy is small a finer screen such as the 30 by 30 should be used. Sometimes screens made of long mesh wire cloth are used for timothy seed.

Zinc sieve—perforations 1-22 inch in diameter. When used as riddle with a short, quick shake timothy passes through, leaving Canada thistle, chicory and seeds similar in size above to be run off the end. Success in making separations with any sieve depends on giving it the proper slope and movement.

One-fifteenth inch perforated zinc sieve—perforations 1-15 inch in diameter, used as a riddle or upper sieve for cleaning red clover. Ragweed, sticks, pieces of straw and anything larger than Red Clover seed will run over this sieve.

This wire sieve, 4 by 24, contains four wires to the inch one way and twenty-four the other, the type of screen used in cleaning red clover seed. Shrunken clover seeds, ribgrass, and the smaller weed seeds pass through the oblong openings while the plump seed remains above.

The buckwheat screen is made specially for the separation of wild buckwheat from gain. It should be used with the point of the aperture towards the upper end of the screen. Screens of this kind are usually made with perforations 8-64 inch to the side, but larger perforations would probably be preferable for many samples.