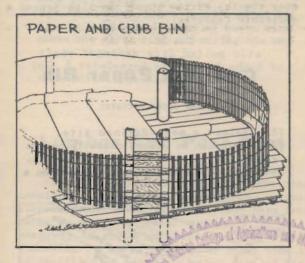
Special Circular A-27

August 1942

Grain Storages



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TEMPORARY GRAIN STORAGES

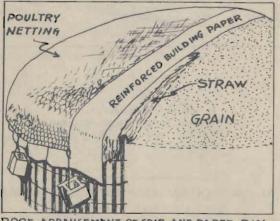
THE TEMPORARY GRAIN STORAGES DES-CRIBED IN THIS LEAFLET ARE NOT INTENDED TO REPLACE PERMANENT STORAGES, BUT SHOULD BE USED ONLY AS SHORT-TIME STOR-AGES OR FOR STORING THOSE GRAINS TEAT CAN BE MOVED TO A MORE PERMANENT STORAGE WHEN SPACE HAS BEEN MADE AVAILABLE.

All temporary storages should be located on well-drained sites. It is often desirable to mound the earth under the bin slightly to provide better drainage. A cheap shiplap and 2 inch X 4 inch floor covered with a nonodorous reinforced building paper has proven a worthwhile investment. A roof of nonodorous roofing paper or reinforced building paper over the top of the wheat has also proven a desirable feature.

Crib And Paper Bin

(See cover picture)

- (1.) Select a well-drained site.
- (2.) Grain can be placed directly on the ground, but a cheap floor is a good investment. 2 inch X 4 inch sleepers on a



ROOF ARRANGEMENT OF CRIB AND PAPER BIN

gravel fill covered with shiplap and reinforced building paper make a very satisfactory floor. A layer of 12 inches of long hay spread evenly over the ground and covered with reinforced building paper is also satisfactory.

DO NOT ATTEMPT TO STORE GRAIN IN A TEMPORARY STORAGE THAT WOULD NOT KEEP WELL IN A PER-MANENT BIN.

(3.) STRETCH the wood slat cribbing to eliminate excessive stretching when filled.

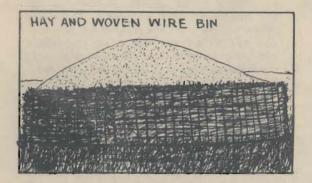
(4.) Splice the ends of the cribbing securely to form a ring. If an emptying door is desired set two heavy posts in the ground. Attach the cribbing securely to these posts. Crosswire the posts with four twisted strands of No. 12, or heavier, wire at 1-foot intervals and board up the space between the posts. (5.) Set the ring of cribbing to form a circle.

(6.) Line the ring of cribbing with strips of reinforced building paper cut into lengths of not over 12 feet. Lap the ends at least 12 inches. Clips to

COVERED TEMPORARY STORAGES HAVING EMPTYING DOORS CAN BE USED SATISFACTORILY AS TRANSFER BINS FOR MOVING WHEAT FOR MIXING.

- hold the paper in place can be made by nailing two laths together at one end. Remove the clips after the bin is partially filled.
- (7.) Cover the floor with strips of reinforced building paper.
- (8.) Fill the bin. Covering the bins with reinforced building paper has proven very advantageous. Contact your paper dealer for instructions for completing this job.

(9.) Additional tiers can be added by following the same procedure as was used for erecting the wall of the first tier. Set additional tiers outside the first tier so it will be free to settle without tearing the paper liner. Processed building material can be used instead of the cribbing and paper sidewalls to make a substantial, vermin-proof storage. Any moisture-proof building material capable of withstanding the pressures developed by wheat can be used. Consult dealers to determine if suitable materials are available. Dealers can also advise as to the best method for erecting the material.



Hay And Woven Wire Bins

This is a very inexpensive type bin but one that has a fire hazard and one that is is guite subject to vermin infestation.

(1.) Secure the desired length of heavy duty woven wire. If more than one tier is to be constructed, cut all lengths of wire exactly the same length.

- (2.) Splice the ends of the wires together. Use a wrap splice. Do not use an eye splice.
- (3.) Set the wire in a circle and place

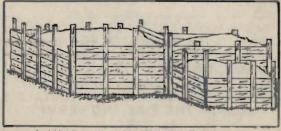
ROOFS MADE FROM LONG HAY THAT IS WELL-THATCHED, CAREFULLY LAID CORN BUNDLES OR BUNDLES OF HAY, OR ANY OF THE OTHER SIM-ILAR MATERIALS HAVE PROVEN SAT-ISFACTORY, BUT THESE MATERIALS ADD TO THE FIRE AND VERMIN HAZARD TEMPORARY STORAGE SITES SHOULD BE FENCED TO KEEP OUT ALL TYPES OF LIVESTOCK. — IF LOCATED IN AN OPEN FIELD THE SITE SHOULD BE PROTECTED FROM FIRE WITH A FIREGUARD.

12 inches to 18 inches of long hay on the ground to form a floor. Allow the wheat to run into the center of the bin. The weight of the wheat as it mounds and runs towards the outside edge will compress the hay into a very solid floor. (4.) Lay a layer of long hay 12 inches thick against the woven wire side wall. As the bin fills, lay additional layers of hay. The pressure of the wheat on the hay will compress the hay to form a very solid wall.

(5.) Additional tiers can be added by placing additional rings of woven wire above the first ring and wiring the two rings together with baling wire.
(6.) A reinforced paper roof added to this unit is desirable.

Lumber And Post Bins

The old fashioned lumber and post bins constructed in the open and covered, or constructed under existing roofs, have been used satisfactorily for years. Crosswire the posts securely to avoid excessive bulging of the sidewalls. A cheap floor under these bins is as desirable as under any other type of bin-



LUMBER AND POST BIN

Temporary storages cannot be used safely as a permanent storage. Construct a permanent granary and transfer the grain as soon as possible.

Grain Storage Plans

The following grain bin plans may be inspected at your county agent's office and copies of these plans can be obtained from the NDAC Extension Service Agricultural Engineer.

Plan No.		Description				Price	
EX.	5580	10' x10'	-	Portable	500	Bu.	15¢
EX.	5581	12' x14'	-	н	1,000	н	15¢
M. W.	73211	10' x10'	-	n	500	19	15¢
M. W.	78212	12' x14'	-	8	1,000	н	150
EX.	5528	14' x24'	-	Permanent	1,800	Ħ	15¢
BX.	5529	81' x82'	-	в	6, 400	H	15c
M. W.	78213	12" x 24"	-	19	2,000		15c
M. W.	78214	81' x 82'	-		5,000	н	15¢
N. D.	782-2-1	20' x84'	-		5,000		15¢
M. W.	73281	80' x 80'	-	Elevator	10,000	Ħ	45¢
EX.	5098	16' x81'	-		11,000		80¢
EX.	5582	80' x 80'	-		10,000	и	45¢

Plans for corn cribs and combination granaries also are available. Plans for poultry houses, hog houses and machine sheds of a design suitable to be reinforced sufficiently to store grain during this emergency and later to be easily remodeled into livestock shelters also are available.

Obtain these plans from the NDAC Extension Service Agricultural Engineer.

Cooperative Extension Work in Agriculture and Home Economics, the North Dakota Agricultural College and the U. S. Department of Agriculture cooperating. Published and distributed in furtherance of the Act of Congress of May 8, and June 30, 1914.