



PORTIAC.
(Continued from page 2.)

Iroquois, Champaign and Vermillion counties.
Miss Gladys Durgy, of South Mill street, spent Sunday in Champaign, where she was the guest of her aunt, Miss Mabel Chaband.
Mrs. Albert Mall and son, of Aurora, who have been guests of Miss Anna Lord, on South Mill street, for several days, left Tuesday morning for their home.
Charles Jobst, of the shipping room force of the A. M. Legg Shoe Company, left Tuesday morning for Mackinac Island to spend a two weeks' vacation.
Mrs. Graham, of Carlinville, who has been the guest of Mrs. Howard Stowe and family on West Madison street, left Wednesday afternoon for her home.
Mr. and Mrs. Rathgeber, of Girard, who have been the guests of Mr. and Mrs. Percy Enslow, on East Water street, for several days, left Wednesday afternoon on their return home.
Mr. and Mrs. Archie McMullen, of Forrest, accompanied by the latter's sister from Assumption, spent Monday and Tuesday in this city the guests of Mr. and Mrs. J. P. O'Malley.
Mr. and Mrs. James Sedlacek and baby, of Chicago, are in the city the guests of the latter's grandparents, Mr. and Mrs. James Fenton. Mrs. Sedlacek formerly resided in Pontiac and will be better remembered as Miss Mary Snyder.
Mrs. M. J. Hanna, of Pittsburg, Kan., who has been spending some time with her sister, Mrs. Handley, at the home of Mr. and Mrs. Fred Heine, on the south side, left Wednesday for Newark, Ohio, where she will spend some time with relatives and friends.

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BLACKSTONE
Frank Young spent Sunday at Streator.
Viva Hiller returned home from Utica last week.
Ed Blanchfield spent Sunday with Wallace Hilton.
Gusta Werner spent Sunday at Streator with her parents.
Mrs. Walter Russow spent Monday afternoon with Mrs. Gunder Mitchell.
Mr. and Mrs. Michael Ruddy spent Sunday at the home of Martin Christensen.
Charlie Mackinson and family, of Esman, spent Sunday at the home of F. Walker.
The funeral of Mrs. Louis Hoberg was held Saturday, June 21, and was largely attended.
Mr. and Mrs. Walter Albin autotod to Graymont Sunday evening to attend the revival meeting.
Mr. and Mrs. Duncan Stubbs, of Streator, and Mr. and Mrs. Gunder Mitchell and Hannah and Esther Wicks spent Sunday at the home of George Rush.

NEVADA
Mr. and Mrs. Michael McDonald were Odell shoppers Tuesday.
Misses Belle and Fannie Gillett were Dwight visitors last week.
Miss Mary Corrigan is spending a few days with relatives in Odell.
Mrs. Joseph Grundler spent last week with her sister at Chatsworth.
John Altfer and sisters visited their sister, Mrs. Schilling, at Odell Sunday.
Mr. and Mrs. P. E. Trainor, of Budd, spent Sunday at the Corrigan home.
Miss Sadie Burns visited her brother, Michael and family, the past few days.
Willie McCanna, of Joliet, visited over Friday night at the home of W. E. Ruddy.
Mrs. Donbor, Mrs. Dougherty and daughters visited Odell relatives and friends Saturday.
Miss Irene Dougherty, who has been in St. Mary's Hospital in Streator, is getting along nicely.
Benham—I always have to do the lion's share of the work.
Mrs. Benham—Yes; the lion's share is to roar.

Greater Farm Efficiency

Concrete a Profit Maker

By PROF. C. A. COCK, Wisconsin College of Agriculture

The watchword of the present seems to be conservation. This apparently may be applied to all lines of work. Not only is this true in the commercial world, but it will hold true in rural pursuits. The farmer is exerting every effort in obtaining more efficiency from his activities and to do this he is gathering about him every kind of modern machine or contrivance that is obtainable.
Concrete on the farm is becoming an important factor and with the advent of this new medium of construction, feeding floors, troughs, racks, fence posts, silos, farm buildings and many useful necessities are being added to the farm equipment. Many of these useful things may be constructed by the farmer himself or his regular help. All that is necessary is a working knowledge of concrete and its reinforcements. In the construction of large buildings a knowledge of the reinforcement of beams and girders is required and such construction should be submitted to an architect or a bridge engineer who is acquainted with these problems.

Materials used in the construction of concrete work are usually proportioned 1-2-4 or 1-2-3-5, 1-2-5, 1-4-8, depending upon their character. That is, 1 part cement, 2½ parts sand and 5

If a layer of mud or clay settles over the sand, do not use it.
Gravel or stone should be free from sticks, leaves or any foreign substance which would in any way destroy the action of the cement upon the sand and gravel. If clay is present, always wash it out by pouring water over the sand or gravel which is to be spread over an inclined screen.
Spread the cement upon the sand and gravel if they are in combination on the water-tight platform and mix until the whole mass is of uniform color. Then add water unless screened gravel or crushed stone is being used, in which case place the cement upon the sand, mixing until a uniform color; add gravel or crushed stone and mix thoroughly, and then add enough water to produce the proper consistency. Hoes or shovels can be used to mix the concrete, but the latter are more often employed. Concrete should be mixed in small quantities, only such amounts being prepared as will be used up immediately. Concrete hardens so rapidly that lumps often begin to form throughout the whole mass before it can be used. Under these conditions the whole amount should be discarded. Concrete ought not to stand more than 25 or 30 minutes after the ce-

TABLE I. MATERIALS FOR ONE CUBIC YARD CONCRETE.

Bbls. cement per cu. yd. of concrete	Mixture			
	1-2-4	1-2½-5	1-2-6	1-4-8
1.0	1.3	1.07	1.00	1.3
Cu. yds. sand per cu. yd. of concrete	4.2	4.4	3.3	3.4
Cu. yds. stone per cu. yd. of concrete	.84	.88	1.00	1.68

TABLE II. DIMENSIONS FOR RECTANGULAR TANK.

Capacity In Barrels	Dimensions							
	A	B	C	D	E	F	G	K
66	16	8	2.8	2.2	6	4	9	32
48	16	7	2.8	2.2	6	4	9	29
40	16	6	2.8	2.2	6	4	9	27
33	14	7	2.8	2.2	6	4	9	26
28	14	6	2.8	2.2	6	4	9	24
25	14	5	2.8	2.2	6	4	9	22
21	12	6	2.7	2.2	5	3	8	16
18	12	5	2.7	2.2	5	3	8	15
15	12	4	2.7	2.2	5	3	8	12
12	10	3	2.7	2.2	5	3	8	9
10	8	4	2.6	2.2	4	2	7	7
9	8	3	2.6	2.2	4	2	7	7
7	6	3	2.6	2.2	4	2	7	6
6	6	2½	2.6	2.2	4	2	7	6

BILL OF LUMBER FOR 10 FT. X 6 FT. TANK.

Size.	No. Pcs.	Length.	Purpose.
2 in. x 4 in.	8	2 ft. 0 in.	Stakes.
2 in. x 4 in.	12	2 ft. 8 in.	Outside stiffeners.
2 in. x 4 in.	4	16 ft. 0 in.	Outside forms (sides).
2 in. x 4 in.	4	6 ft. 6 in.	Outside forms (ends).
2 in. x 4 in.	4	15 ft. 4 in.	Outside forms (sides).
2 in. x 4 in.	4	5 ft. 2 in.	Outside forms (ends).
2 in. x 4 in.	4	2 ft. 2 in.	Inside stiffeners.
2 in. x 4 in.	6	2 ft. 6 in.	Inside corner and corner stiffeners.
2 in. x 4 in.	3	4 ft. 10 in.	Center braces.
2 in. x 4 in.	3	6 ft. 0 in.	Form supports.
2 in. x 6 in.	8	5 ft. 7 in.	Side braces.
2 in. x 6 in.	8	16 ft. 0 in.	Outside forms (sides).
2 in. x 6 in.	3	6 ft. 6 in.	Outside forms (ends).
2 ft. x 6 in.	6	15 ft. 4 in.	Outside forms (sides).
2 ft. x 6 in.	6	5 ft. 2 in.	Outside forms (ends).

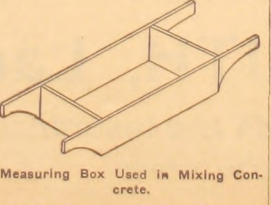
parts crushed stone or gravel are used in the 1-2-3-5. The mixture selected will depend upon the nature of the work in which it is used.

Table No. I. shows the materials necessary for one cubic yard of concrete.

In order to determine the amount of cement necessary for any amount of concrete, estimate the number of cubic yards and multiply that number by the figure in the table opposite, "Bbls. cement per cubic yard of concrete," and under "mixture to be used." The amount of sand and of stone is determined in the same way.

Batch mixing, as indicated by the name, is an intermittent process and is the one most used in silo construction. Under certain conditions the continuous mixing process may be employed. Continuous mixing is done by machinery, the materials being fed into the machine without interruption during the mixing process, which may continue for four or five hours. Batch mixing may be done by machinery if it seems more desirable. Simple mechanical mixers have been very successfully constructed from an ordinary kerosene barrel.

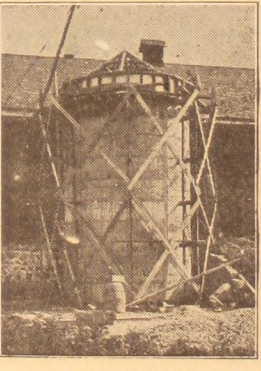
Water should be added until a sloppy mixture is obtained. This will permit the material to be readily poured. The concrete should be prepared upon a water-tight mixing platform, usually about 10x12 feet. In placing the materials upon this platform, some method should be used to get the proper proportions; that is, if a 1-2-4 mixture is used, some simple measure for the materials should be employed whereby this may be easily determined. Weighing is accurate, but somewhat



slow. Using a wheelbarrow of known capacity, or counting the shovelfuls is the most common practice and is considered a fairly accurate method. The bottomless box shown in the figure is the best means for this determination. The sand and gravel should be clean. The following test may be used to determine if the sand is clean: Fill a glass jar one-quarter full of the sand and add clean water until the jar is three-quarters full. Shake well, and

ment is first wet, without being placed.

In placing concrete, the most important thing to be observed is the manner of handling. The materials must not be separated when poured into the forms. Pouring from a considerable height should not be practiced, as the



heavier parts will be separated from the lighter and forced to the bottom of the mass. Good concrete is only obtained when the stones and gravel remain in contact with the mortar.

It is not hard to make the forms for concrete tanks. In fact most any one can invent a form of his own. The amount of stock to be watered at the tank must be taken into consideration when the size is planned. If a rectangular tank is to be used, the proper dimensions can be determined by consulting Table II.

It often happens that around a stock tank there is a mud hole. This can be easily avoided by making a cement platform around the tank extending out six feet on all sides.

In making the forms for the tank, the outside measurements of the inside forms should be one inch greater in both directions than the outside dimensions of the tank. This is necessary to avoid the possibility of any part of the tank being supported by the floor proper. The outer edge of the floor should be one inch lower than the edge surrounding the space to be occupied by the tank. This provides drainage for water that is spilled to be occupied by the tank.

The bill of materials shown above is for a tank ten feet long and six feet wide. The price of such a tank can be easily computed by a local dealer.

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