

Sewerage Disposal Power Control for Northwest Aluminum Plant

(By W. J. Cloyes, Sanitarian Lane County Health Dept.)

It is the object of this article to explain the elements of the subject of sewage disposal via septic tanks in order that the public, who has or intend to install sewage disposal tanks, may not be confused and misled by information from unreliable sources. Inquire of your county health department for scientific information as to location and type of sewage disposal method best suited for your premises.

Much has been written relative to the "wonderful miracles" performed on sewage within the confines of a septic tank. Some trade journals and misinformed people will contend that the effluent from a certain septic tank is clear and sparkling 99 percent pure, and absolutely suitable for drinking purposes should you care to indulge. Members of the Engineering Division of the Oregon State Department of Health have been confronted with such statements. It is regrettable that the public has had such voluminous misrepresentation of facts concerning the object and efficiency of septic tanks foisted upon them by over-zealous tradesmen and self-styled sanitary engineers.

There is nothing wonderful about the operation of a septic tank; indeed, it seems unfortunate that such a term was ever devised. The term sedimentation tank or settling tank would be much more accurate and certainly less misleading. The septic tank is nothing more than a large container so designed that the sewage will remain quiet in it for a time so that the solids insuspension will settle out by the action of gravity and be retained in the tank.

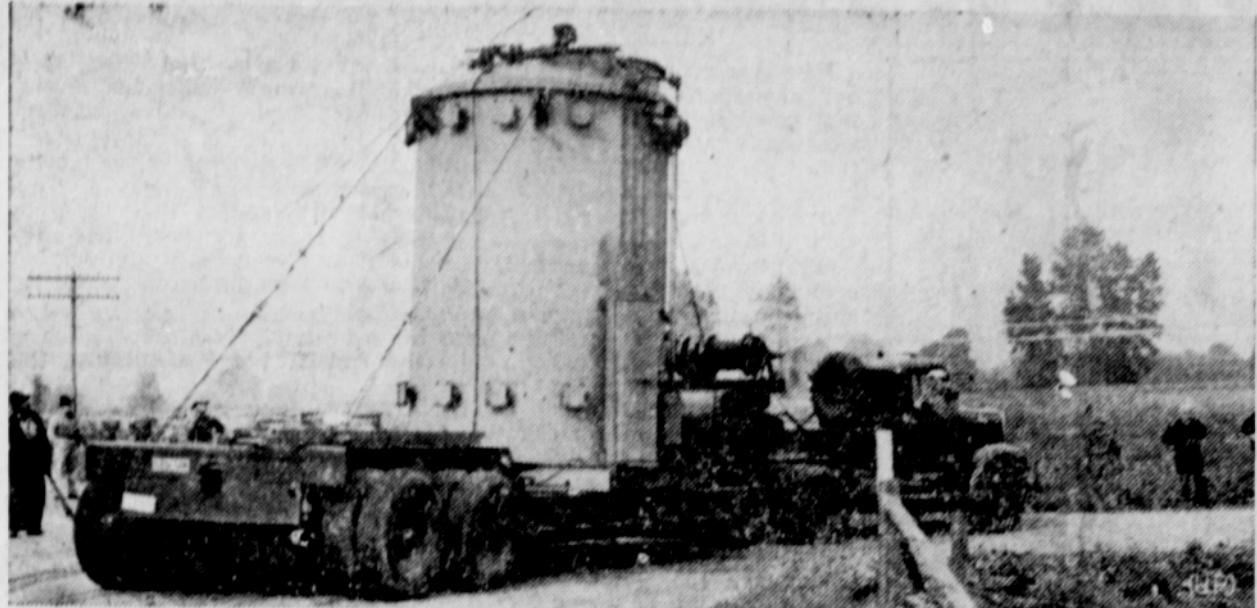
Two simple things happen in a septic tank—settling and rotting which is called septic action. Septic action, decomposition or rotting whichever it is called, is carried on by the activities of bacteria which develop in the tank, but an understanding of the exact details of the decomposition process is not essential. The products of this decomposition are gases, liquids and solids, or residues of a stable nature, that is, solids in which the decomposition process is complete and which are not subject to further decay with consequent production of objectionable odors.

The reader has no doubt at various times, noticed bubbles rising to the surface of a stagnant marshy pool. These bubbles are indication that decomposition of organic matter is taking place at the bottom of the pool with a resultant liberation of gas. Bacteria are at work in the accumulated vegetation and they are slowly breaking down the unstable organic matter into stable compounds. This is precisely the action which takes place within the septic tank.

The original theory of the action of the septic tank was that the solids retained were entirely consumed and that there was no resultant residue. Many tanks for private homes have in the past been constructed on the principle that no residue would have to be removed and therefore no provision was made for its convenient removal. The theory of complete digestion without residue has long since been exploded and it is therefore essential that provision be made in design and operation for the removal of accumulated material. After septic action has progressed to a certain degree, these deposits can be removed and dried on land or on artificially prepared sand beds. When the removal of the accumulations from a septic tank becomes necessary it will be found that only part of this material has been completely digested. The portion which has been only partly digested gives rise to objectionable odors. The sludge should be carted away in closed wagons or tanks to some more favorable spot for disposal by burial.

A heavy scum will often form over the surface of the liquid in the tank. This is brought about by bubbles of gas as they rise toward the surface, carrying with them some of the solid material which had previously settled and on the way collecting some of the settling solids. There are also some constituents of domestic sewage which are lighter than water and which do not settle readily. These remain at the surface of the liquid and add to the scum volume. Grease from kitchens and from some commercial processes tends to increase scum formation. Laundry trays and kitchen sinks should be discharged into the septic tank along with the sewage.

To insure any efficiently operating septic tank, be sure that the tank is large enough to retain a 24 hour holding period so that the solids will have time enough to settle out. Small tanks or poorly designed tanks cause solids in suspension to short circuit through the tank and appear in the field tile, thus plugging the drainage field so that the effluent cannot seep out as intended.



Here is one of several 30-ton tanks for transformer oil located at Bonneville Power Administration's substation, which serves new aluminum reduction plant near Vancouver, Wash. It is West's only aluminum works, slated for important defense work. Expanded aluminum production is essential for plane program.

THE POCKETBOOK of KNOWLEDGE BY TOPPS



Gifts Double As 'Bundles' Expands Field

NEW YORK—During September and October, the first two months of operation under an expanded program developed last summer, Bundles for Britain, Inc., received a total of \$367,075.75 in cash, knitted articles, clothing and other supplies. Mrs. Wales Latham, president, reports from national headquarters, 745 Fifth Avenue.

The gross receipts for the two-month period establish a new high level. From its organization in December, 1939, to August this year, Bundles for Britain, Inc., received \$228,831.03 from all sources. Thus the total for September and October is more than 50 per cent greater than the aggregate receipts for the previous eight months.

The figures are based on reports to the United States Department of State, prepared by the treasurer of Bundles for Britain, and include "all activities and expenses at national headquarters and those appearing in reports for the period from such of the branches as were received to the time the statement was prepared." The total sum raised by the Bundles for Britain organization therefore is actually greater than the report indicates.

Branches More Than Doubled—The number of branches was more than doubled during the period covered by the report. On September 1, there were 152 branches. At the end of October the total was 305.

Of the gross sum received, \$192,013.26 was in cash, and \$175,062.69 consisted of gifts in kind, the values of which were fixed by insurance appraisers and other experts. Relief operations for the period included cash sent abroad, articles purchased and shipped and contributed articles, equipment and supplies consigned to the British Isles to the total value of \$229,263.16. The shipments included ambulances, mobile canteens, field hospital equipment, surgical instruments, hospital and medical supplies.

Expenses Cut To 10 Per Cent.—By reason of the larger effort, expenses decreased in relation to the amounts raised for relief to a point where, in September and October, they were slightly less than 10 per cent of total contributions, Mrs. Latham said. Administration, mail appeals, supplies and all other non-relief operations (except articles for re-sale) cost \$36,653.18 for the two months. This low figure was made possible through volunteer executive direction and the use of volunteer workers wherever possible. The paid staff is limited to necessary technical workers, not available on a volunteer basis.

Lynx Hollow

The Community club held their Christmas meeting recently at the home of Mrs. Lawrence Porter, exchange of gifts and Pollyanna remembrance. Officers were elected for the coming year. Mrs. Lawrence Porter, president, Mrs. Howard Stout, vice president, and Mrs. Harold Radway, secretary. A vote of appreciation was extended to Mrs. W. M. Moore and Mrs. Walter Pentic, out-going officers. The next meeting will be the afternoon of January 8th at the home of Mrs. Lawrence Fisher.

Private John Bench of Ft. Stevens, California, was a holiday guest at the home of Mr. and Mrs. James Smith.

Mr. and Mrs. Askcraft of Memphis, Tennessee, are guests of Mr. and Mrs. William McBee.

Audie and Della Moore of Sunny Vale, California, were holiday guests of their parents, Mr. and Mrs. W. M. Moore.

Mr. and Mrs. Chet Doggett and daughter Evelyn of Mapleton were overnight guests of Mr. and Mrs. Lester Lebow.

COLLEGE STUDENTS HOME FOR VACATION.

Among those home from college for the holidays are Marguerite Hodges, Mac Trask, Jerry Kern, Dean Jackson, Doris and Betty Arnest of O.S.C.; Vinal Randall Jr., Mary Jane Smith, Bob Grannis and Lois Baldwin of Williamette; Evelyn Weeldreyer of Monmouth; Jimmy Bickie, Tom Cox and Bill Earl of Oregon; Patty Short of Stephens College in Missouri; Lorene Christensen of Santa Monica, California; Lillian Geer of Sacramento, California, and Ray Randall of Pasadena, California.

Cemeteries in France

The U. S. paid \$1,210,674 for our cemeteries in France, from the World War period through 1925. They have cost the government \$109,000 a year for maintenance.



We hope you have a joyful New Year and 365 days of happiness. Our aim is to serve you better in 1941.

Beidler Feed and Seed Store

For a Better 1941

The ending of the holiday season would not be complete unless we express our best wishes for a bright and happy new year in 1941.

And also express appreciation for the friendly relationship with our friends and customers the past year.

Cottage Grove - Eugene Freight & Transfer Co.

IRISH-SWARTZ

BUY CANNED GOODS TODAY

With the government buying so heavily of these non-perishable foods, the stocks of canned goods are fast becoming scarce and we look for higher prices in the early spring. Stock up on canned goods now.

Dundee Corn 303's

Trailer Peas 303's

Short Cut Beans 2's

3 for 25c
1 Can Free With 12

H-D Fancy Goods

Garden Peas, 303's

String Beans, 2's

Cream Corn, 2's

Whole Kernel Corn, 2's

Tomatoes, 2 1/2's

3 cans

35c

1 Can Free With Each Dozen

Tomatoes Dundee 3 NO 2 1/2 CANS 25c

H-D Fancy Spinach 2 1/2's

2 cans 25c

Dundee Whole Peaches 2 1/2's

2 cans 25c

Cut Asparagus Yamhill

2 picnic tins 25c

Case of 24 \$2.89

BAKER'S DOZEN SALE!

All canned goods at regular prices and One Free with a dozen. 13 cans for the price of 12.

Hot Sauce H-D Brand

6 for 25c
1 free with a dozen

Tomato Juice Del Rogue No. 1 tins

4 for 25c
1 free with a dozen

Fruit Cocktail H-D

3 cans 35c
1 free with a dozen

Tuna Flakes 3 cans 33c

Peter Pan \$1.35

Our finest flour value.—Carries our unconditional guarantee.

White Star TUNA

1 free with a dozen

No. 1/2 tins. . . . 17c

Dinner Bell—Pure Vegetable, Top Quality

Shortening 3 lb. can 39c

Del Monte Coffee

4 lbs. packed in re-usable pail. A fine value.

89c

Folgers Coffee

1 pound can. . . . 24c

2 pound can. . . . 46c

4 pound can. . . . 92c

Candy Close Out Hard Mix and Choc. Drops 3 lbs. 25c

Valley Brand

HONEY

5 lb. pail 29c

Kellogg's Regular Size

CORN FLAKES

4 packages. . . . 25c

Wheaties or Corn Kix 2 pkgs. 21c

Irish's Special

Fresh Extra

Hardwheat Flour 49 lbs.

\$1.25

EGGS

Doz.

28c

2 dozen 55c

HAPPY NEW YEAR!

KELLY'S Sauer Kraut Quart 10c

Sliced Bacon Pound 23c

Pork Liver 2 pounds 25c

Veal Steak 2 pounds 39c

Pork Sausage 2 lbs. 25c

Round Steak Pound 27c

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Fluorescent and other modern Power & Light Plants.

Wiring, Conduits, Farm Lighting equipment.