

The next and final process in connection with the Imhoff Septic tank are the Filtration Beds. These Filtration beds are usually constructed on an incline so that the liquid contents from the Septic tank after passing through the gravel Filtration bed are rendered 98% pure and free from contamination.

Our little River town could be spared considerable contamination of certain outlets were diverted into other channels. It is the opinion of the Village Manager that these conditions will be remedied in a satisfactory manner when the town decides upon a bond issue with which to finance the enterprise.

Two extensions in water mains were made during 1918. Water service was installed on Clark street and the service on George street was lengthened.

The "dead ends" in the village water system should be eliminated as soon as conditions permit. The percentage of iron and sulphur is so great that a sediment is bound to occur when this water ceases to circulate. The connecting of old lines would improve clear water for houses to percolate.

Our only municipally owned plant is the water tank. The tank is severely taxed to the demands of the Village at the present time and will continue to be less capable of meeting the water supply as the population continues to increase. Four new wells were drilled last spring. These have an average depth of seventy two feet. They are all of the same gravel bearing strata with the exception of two wells which are still yielding a supply all operated by the same pump.

There are several engines on the pump. But they are supplied from a dynamo and none of them are really powerful enough to circulate the water for all parts of the town when the demand is greatest. The new wells are each provided with a back lined sandstone and gravel gate valve. The water is drawn from one of these new wells and may be shut off in the evening before entering the main. One gate valve is the portion of the motor which draws water from the four old wells can be opened or closed at will thereby shutting off the supply which the four old wells are connected to. It is impossible, however, under the present arrangement to interchange shut or open the flow from any one of the old wells without stopping the flow of every one of the four.

The oldest wells are located North of Maple avenue and on the West side of the river. When they were connected to the pumps through a main which runs on the river bottom but not through the river bed. Prior to July 1918 the water which entered the water from these wells was supported in a manner which elevated it above the surface of the stream. It is now necessary to place it to play it in the market above described.

All oil or kerosene wells which are no longer producing and which have not only been disconnected, but the pumps or tubings have been pulled. Considerable lengths of this tubing was found to be in place. This tubing was sold for drilling wells in other sections.

The ladies of Bloomfield Center donated in behalf of the annual water league a drinking fountain which has been connected to one of the deep flowing wells. This fountain stands at the West side of the road on the south side of Maple between the water works and the River house. Drinking compartments for horses and dogs has made the spot universally popular.

A reservoir would enable the Village to store the extra water which could be produced and using water in any extra fuel. Some doubt exists as to whether the quality of water produced from the "wells" would be suitable for drinking. The water from various water mains after it had remained sedentary in a reservoir. It is the writer's belief that the water which accumulated in a reservoir could be used in connection with one of the alternate pumps to supply moisture during dry weather or in case of a fire.

However, the only way of storing water which would not become flat or unsavory with age would involve the use of water which comes from the rocks at a depth of several hundred feet. This is the type of liquid now coming from the two flowing wells located near the municipal plant. There is no doubt an unlimited supply of this water if wells are placed at a sufficient depth so as to reach this flow. The water now introduced into the mains contains considerable iron and sulphur and has an undesirable effect upon metals, porcelain and cloth fabrics. Two examinations of the water furnished from these mains are given below. One dated September 23, 1918, is from the Detroit Testing Laboratory, and the other written October 1, 1918, is from the State Board of Health Lansing, Mich.

The chemical analysis of water from Birmingham will be as follows: Silica 1.40 parts per 100,000 Iron and Aluminum Oxides 0.20 parts per 100,000 Calcium Chloride 14.38 parts per 100,000 Magnesium Carbonate 6.51 parts per 100,000 Sodium Chloride 1.90 parts per 100,000 Sodium Sulphate 2.73 parts per 100,000 Sodium Chloride . 7.02 parts per 100,000

Total Mineral Matter 34.41 Organic Matter 0.91 Total Solids 35.35 The Bacteriological Analysis Bacteria per cc: Culture on plain agar-agar 130 Incubation at 37°C. Time 72 Hrs. Fermentation-Gas producing organisms: Culture on 1% dextrose broth Incubation at 37°C. Time 72 Hrs.

Quantities: 9.1 CC— 1.0 CC— 1000 CC—

Enrichment Culture: Fermentation on Lactose Litmus agar Absent Fermentation on 1% Dextrose Absent Estimated by taking the reciprocal of the highest dilution showing a positive reaction in 10% of Quotient 5

The sample of water received from the village water works was examined for iron with the following results: Coliforms per cc 5 B. Coli in 100 cc Absent Coliforms in 100 cc Absent Coliforms on L. A. Absent Fermentation Absent

Considerable money has been invested in water meters. Under the "Flat rate" system it was customary to charge in proportion to the number of meters on the premises. Properly additional meters and more modern plumbing was introduced into residences without effecting the water rate. The installation of water meters measured service evenly everybody the same and in view of the additional cost in maintaining the municipal water plant the writer does not believe it is impractical to slightly increase the water rates.

All fire hydrants or water plants are pointed a front spring. This water is not an important part of the plant at such great distance than a number of cardinal feet. A hydrant pump has been turned on the water at a distance of one hundred feet. It has been turned against the freezing of hydrants.

The municipal water plant has had a considerable amount of work done in the past several years. The pipe required for residential connections in which case we would have to be measured service evenly everybody the same and in view of the additional cost in maintaining the municipal water plant the writer does not believe it is impractical to slightly increase the water rates.

Should the Village contemplate extending its works into the coming year it is probable that it will be necessary to lay its own water lines and to be laid at the West side of the river and under the present arrangement to interchange shut or open the flow from any one of the old wells without stopping the flow of every one of the four.

The Manager has not made local for the Village. The Government cut down on the purchase of soft coal. The latter was secured from one of the local mines and in various quantities ranging all the way from half ton to one, one and a half tons. It has been the aim of the Manager to secure the disposition of its residents without charging any thing in excess of the actual cost. Unquestionably this has been done by the Village.

Commodities such as electricity, gas and telephone are furnished the way in which an equitable manner. We know all public utility corporations are subject to criticism, but we believe these organizations have done well in their services when they are not imposing their expenses on their share of both labor and material.

The Village is not in a position to store additional stock or with a yard is an important item in many communities these days. The Manager urges the Commission to seriously consider the advantages of one of this locality. The Village would be possible to buy in carload quantities and at a time when the market was favorable, such material as cement, brick and iron pipe, and gravel, sand to the Village where it is needed in connection with streets and sidewalks.

The Manager has given thought and study to the present fire equipment and apparatus. The data available indicates us on the fact that for a village of 3,000 inhabitants Birmingham's fire protection is inadequate. Considering the unevenness of many unimproved streets, more powerful trucks with hose and ladders are a good investment. A study of conditions in other Michigan towns, equal to most of the places have better fire equipment and also allow their volunteer fire departments greater compensation.

Many townships pay the fire departments for services rendered outside of the city limits in which the departments are located. Similar arrangements exist in the several townships about Birmingham. The site of the old fire tower on West Maple, owned by the Village of Birmingham in poor condition, and its transfer of said tower not only give the Village some negotiable assets and would undoubtedly remove the old landmark and improve the site. The garbage question is something which has never been permanently adjusted in the town. People dispose of perishable refuse in one of several ways, such as burying, burning, or feeding it to poultry and stock. The disposal of rubbish including cans, leaves and trash has been handled by the municipality with no regular system. Many residents have expressed a readiness to pay additional taxes to obtain regular service involving the removal of both garbage and rubbish. It is a privilege of having all garbage with the understanding that he would make several trips a week during warm weather and would not starting the late fall and winter months. At that accounts this man was still covering the route but comparatively few residents were contributing to his collection. Any garbage received for the feeding of stock should be kept free from broken glass and paper.

corner of Southfield and West Maple was unusually popular as a play ground for youngsters during the past summer. The Manager had a number of benches repaired and installed in suitable places. The swings were repaired and several additional play grounds were installed in the spot. The Birmingham Improvement Society contributed a number of swings which were planted along the East side of the park pertaining Southfield avenue. These benches were furnished and installed by Mr. Corvill. The shade trees on the property were trimmed and groomed so that the area received plenty of sun light and the grass developed satisfactorily.

The Manager has been pried by a number of residents to consider the desirability of placing the Birmingham cemetery under Village control. The majority of Michigan Villages and towns of today maintain their own burying grounds and no doubt considerable credit might result from the handling of the local grave yard by the Village administration.

This problem might involve the extending of the present Village limits of Birmingham, something which is to be effected by the Village immediately adjoining Birmingham on all sides.

The Manager feels justified in stating that any increase in Birmingham's present boundaries should be taken under advisement now if any expansion is contemplated within the next ten years.

It would be unwise for Birmingham's present residents to bear the gross expense incidental to more improve the city during the next ten years, realizing eventually that the residents in adjoining sections might become a part of the municipality to enjoy the advantage a town having assumed the responsibility.

(Continued Next Week)

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Being about to quit the dairy business, the undersigned will sell at public auction, on the premises, 2 miles east and 1 mile north of Warren Village, of 3 in lot east and 1 mile north of C. Dawson. (Class is on the Recorder's Corral.)