

ALD. DYBHAVN EXPLAINS THE POINTS IN THE SEWER BY-LAW

ALDERMAN WRITES OF PROPOSED SYSTEM AND POINTS OUT ITS GOOD POINTS—COMPARES CONDITIONS

To the Editor of The News:

For my own satisfaction and also for the benefit of the citizens, I have compared the principles in our design for permanent sewers for our city with expressed opinions of recognized authorities on the subject. And for the consideration of the property holders of our city, who on Saturday are called upon to vote on the question, I submit the following:

1. The design of the system: The permanent sewer system is designed as a combined system for sewerage and storm water. It is designed to serve a population of about 110,000 with an average water consumption on 60 gallons per head per day, and with a maximum actual run-off rainfall of three inches in 12 hours. As it is estimated that the actual run-off in "built-up" areas is about 80 per cent, and in residential areas about 60 per cent, our system is designed to provide for a rainfall of 0.625 inches per hour. The maximum record for the last four years is 2.58 inches in 12 hours.

The "New Form Egg Shaped Culvert" has been adopted. This form of culvert provides "the greatest possible hydraulic mean depth" with a minimum flow. Theoretically a four inch pipe with a fall of 1 in 30 would serve 853 persons at a water consumption of 70 gallons per head, per day. Recognized authorities agree that a 12 inch pipe should be the smallest size to be used for any sewer. Our system provides for a minimum size of 18 inch by 12 inch egg shaped culvert.

2. The capacity of the system: In considering the capacity of a sewerage system it must be borne in mind that the amount of the actual rainfall does not flow into the sewers. A certain amount of the rain is absorbed and evaporated, so when our system is calculated on a capacity of a quarter of an inch actual continuous run-off per hour this is equivalent to an actual rainfall of at least half an inch, which takes twice as long to reach the sewer as it does to fall. With the elasticity in any system it is safely estimated that our proposed system will be able to handle even a rainfall of one inch for one hour without taxing above the calculated capacity. As to the elasticity of a sewerage system I beg to quote as follows:

The sewerage system for the City of Buenos Ayres is calculated and carried out on a rainfall of one inch and a half per hour, although it is well known that at times the actual rainfall exceeds the rate of six inches per hour.

In designing a sewerage system for one of the largest cities in England, Mr. A. B. McDonald, M. I. C. E., in consultation with W. Santo Crump, M. I. C. E., Sir W. R. Copland, M. I. C. E., and Mr. Midgley Taylor, M. I. C. E., adopted the combined system and designed it to carry off a quarter of an inch of rainfall at 24 hours over and above the sewerage flow. The annual average rainfall for this district was about 60 inches with the maximum recorded rainfall of one inch and a half per 24 hours. After the system was completed a storm of the maximum rainfall occurred and notwithstanding the fact that the system was designed to carry off only one-sixth of the actual rainfall no complaints of flooding were reported. I will also add that the sewage was discharged through the ordinary balanced tide flaps as has been designed for our system.

The above mentioned rainfall of a quarter of an inch per 24 hours has been adopted for the designing of sewerage systems throughout that part of the country by such men as Sir John Hawkshaw, Sir Joseph Bazalgette, Sir Alexander Binnie and Mr. Bateman. England is in the same latitude as Prince Rupert.

"The time of concentration is the longest time required for water from the remotest points of the portion of the drainage area being considered to reach the outlet of that portion." "The storm causing the greatest rate of discharge in a storm sewer will usually be the maximum rain lasting a length of time equal to the time of concentration." The time of concentration for Area D is estimated to

be 27 minutes. "Of rain which falls in a given period not more than 50 per cent. flows off the ground within the period of the fall."

3. The combined system: Mr. Vernon Harcourt, M. I. C. E., says: "Especially in large towns where the volume to be provided is the greatest, the separation of the rainfall from the sewage has been considered impracticable." "In large towns the cost and inconvenience of laying a second system of drains and sewers throughout so as to separate the rainfall from the sewage offers a serious obstacle to the introduction of this method."

Having satisfied myself that our proposed system compares very favorably with the opinions of the above mentioned authorities on this subject I feel quite justified in recommending the voters to support the scheme.

Your obedient servant,
JOHN DYBHAVN,
Chairman Board of Works.

To Revive Violets.

The sweet violet blossoms are coming into season again, and are different to any other flowers inasmuch as they may be easily revived after wearing by the following method: Plunge them, head downward, in a jug of water, take them out and put a dry tumbler over them and cover the tumbler with a towel, so as to keep out the light. Next morning they will be as fresh as when picked.

Laundering of Chiffon.

Chiffon, like fine lace, must be most carefully treated in the laundry. The better qualities will wash many times, if care is exercised. This fabric should be washed in soap lather by carefully rolling and pressing between the hands. Then rinse in clean water and stiffen in gum water, the same proportion as for lace. Roll the fabric in a cloth to absorb some moisture and iron while still damp. To iron it, place it on the table wrong side up and iron first along the selvages. It should then be held tightly in front of the iron to remove the wrinkles produced by washing and to make it quite smooth and even. When dry fold the material without pressing the folds in.

The New Walking Skirt.

It is most necessary for the woman who has to dress on little to study the fashions well before making decisions. In this way only will she keep up-to-date. At the same time she will be well advised not to choose styles that are extreme, but on the other hand to select modes that are likely to last for some time. This autumn a change—which every woman should note—has taken place in the skirts of walking costumes. These are now made with a cleverly arranged pleat, which, while not in the least destroying the slim outline, gives a greater amount of freedom. Home dressmakers should certainly choose the style of this walking costume if they would be in the front rank of fashion. Where the skirt shows a tendency to be draped, a cutaway coat and a smart waistcoat should be worn.

Useful Hints About Cake.

To keep cake moist place it in a tin with a thick slice of bread at the top and the bottom of the tin. The bread will become hard as a rock, but the cake, having drawn all moisture from the bread, will be quite fresh.

When a cake or loaf has become stale it may be made fresh by throwing a teacupful of water into a hot oven, putting in the cake or loaf, and shutting the door quickly. In ten minutes, whatever is being baked will be as fresh as though just from the baker's.

To keep Christmas cake—which requires long baking—from burning, after the cake mixture has been put into its own tin, lined with buttered paper, place this in a larger tin, the bottom of which contains a layer of sand.

Howell—Do you believe in heredity?

Powell—I should say I did! I married the daughter of a judge and she is always laying down the law to me.—Judge's Library.

SPORT!

Dan McEwan will return to London and train Midnight Oro for the Canadian ice track meets.

British Columbia hockey clubs are down to practices. The season opens next month.

The Montreal Arena is going to conduct a campaign against rowdy spectators at hockey matinees.

Tom Foster, of Montreal, is suggested as arbitrator between the East and West in the present hockey "war."

Dick Hyland seeks another chance against Joe Bayley. They may meet in the near future at Calgary or on the coast.

John Kling says he is out of baseball forever, but is carrying around offers from the New York and Chicago National teams.

The Three-I League will open its 1913 season on April 24th and close Labor Day.

"I'll be right there helping Johnny Evers be a successful magnate," says "Lefty" Leifield, of the Cubs.

Harry McIntire says if Frank Chance will sign a \$1,200 contract with the Cubs, he (Harry) will play for Murphy for nothing.

President Johnson announces that he expects the American League December meeting to be held in Chicago instead of New York.

The cradle has again given up its load to Nurse Connie Mack. The latest is Richard Durning, a southpaw. He is nearly 20 years old.

One hundred and twenty-eight bases were stolen on Catcher Syd. Smith in the American Association during the last season in 152 games.

Catcher Tom Carson has been made manager of the Waco team, of the Texas League, succeeding Ellis Hardy, who resigned to take up other business.

The heads of the American and the National Leagues have announced April 10th as the starting point for the major league playing schedules next year.

Since there has been a Chicago National League team it has played 4,631 games. Of this number it won 2,712 and lost 1,919, for a winning per cent. of .586.

Olaf Henrikson, of the Boston Red Sox, who played such a prominent part in winning the deciding game, is home talent. His home is in Canton, a suburb of Boston.

Newsy Lalonde must have a press agent all his own. One day a report comes over the wires that the peerless Cornwall boy will play on the coast and the next he is slated for the N. H. A. It is simply a case of the great speed merchant sticking out for the largest salary he can get. Whatever team gets Newsy will grab a wonderful hockey player, but they will have to pay dearly for his services.

It is rumored in hockey circles that if the N. H. A. does not go back to the seven man game, as demanded by the public, Frank Ahern would sever his connections altogether with the Ottawa Hockey Club.

The Winnipeg Victorias are all ready to meet all comers on the ice for the Allan cup, and the world's championship.

Spinach and Eggs.

Winter spinach is now coming into season, and cooked with eggs it forms an excellent substitute for meat on account of the amount of iron contained in the vegetable. Wash this well, sprinkle it with salt, put it into a saucepan and lightly sprinkle with water. Then cook without the addition of more water. Keep the spinach well pushed down into the pot as it becomes reduced in the cooking. As soon as it is tender drain it, chop it finely, add butter and pepper. Then reheat and serve on pieces of toast, laying a nicely poached egg on the top of each. If a few drops of lemon juice are added to the water in which these are poached they will be of a beautiful white appearance when finished.

SOCCER NOTES OF OLD LAND

London, Nov. 25.—Results of league games played on Saturday afternoon were as follows:

First Division

Blackburn Rovers 1; Chelsea, 1.
Derby County 1; Oldham Athletic 2.
Everton 2; Bradford City 1.
Manchester United 3; Liverpool 1.
Middlesbrough 4; Sheffield United 1.
Notts County 1; Bolton Wanderers 0.
Sheffield Wednesday 2; Woolwich Arsenal 0.
Sunderland 3; Aston Villa 1.
Tottenham Hotspur 1; Newcastle United 0.
West Bromwich Albion 0; Manchester City 2.

Second Division

Barnsley 1; Burnley 4.
Birmingham 6; Bristol City 0.
Blackpool 3; Leicester Fosse 1.
Bradford 0; Preston North End 0.
Bury 4; Glossop 0.
Fulham 2; Hull City 0.
Grimsey Town 1; Clapton Orient 2.
Huddersfield Town 1; Notts Forest 1.
Wolverhampton Wanderers 1; Stockport County 0.
Leeds City 2; Lincoln City 2.

Southern League

Queen's Park Rangers 0; Brighton and Hove Albion 0.
Brentford 5; West Ham United 1; Gillingham 2.
Gillingham 2; Watford 0.
Northampton 0; Coventry City 2.
Southampton 2; Plymouth Argyle 0.
Stoke 1; Swindon Town 0.
Reading 2; Crystal Palace 0.
Millwall Athletic 1; Exeter City 0.
Norwich City 0; Merthyr Town 0.
Bristol Rovers 2; Portsmouth 2.

Rugby

South Africans 16; Scotland 0.
Durham 18; Lancashire 6.
Corinthians 4; Cambridge 1.
Harlequins 20; Guy's Hospital 6.
Richmond 5; Dublin 5.
Old Leysians 16; London Welsh 14.
Scottish League
Hibernians 2; Aberdeen 1.
Airdrians 1; Hearts 0.
Celtic 1; Motherwell 2.
Rangers 3; Clyde 1.
Hamilton Academicals 1; Dundee 0.

Falkirk 0; Kilmarnock 0.
Raith Rovers 2; Morton 0.
St. Mirren 2; Partick Thistle 1.
Third Lanark 0; Queen's Park 1.

The Smallest Republic.

The world's smallest republic is not San Marino, as usually supposed, but the diminutive island of Tavorara, about seven and a half miles off the coast of Sardinia. This island is only one and a fifth miles wide, and its whole population numbers but 55. In 1836 Tavorara was granted independence by Carl Albert, and a certain Barteleoni assumed the title of king under the name of Paul I. He died in May, 1882. In 1886 the Tavorarians proclaimed a republic and according to their constitution, a president is elected every ten years.

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