Operates on Low Pressure.

This proportioner will operate on a water pressure as low as 10 pounds and with increasing efficiency at higher pressures. With an inlet pressure of 40 pounds, it can operate against a discharge pressure of 10 pounds. For best service, however, a ¾ inch hose with a relatively large nozzle should be used from the proportioner to the sprinkler. Any attempt to obtain fine sprinkling will cause the proportioner to back up through the vent (D) and overflow. With 50 feet of ¾ inch hose, the nozzle can be restricted so as to give fairly fine sprinkling but if 100 feet are used, the nozzle will have to be quite large.

Using the Proportioner.

In using this device for fertilizing a green, the operator may use a rotating sprinkler or a hand nozzle. For most purposes the latter will be found more practical. It is first necessary to decide on the length of time which is to be allowed for covering the green. The proper amount of solution for the green is then put in the tank and a disc selected which will discharge the solution in the proper time. As an example, let us assume that we wish to apply 4 pounds of sulphate of ammonia per 1000 sq. feet of green. We would then proceed as follows:

1. Prepare a stock solution, using 4 pounds of sulphate of ammonia to one gallon of water.

2. Use a disc which will flow one gallon of solution per hour.

3. Put as many gallons of stock solution in the tank as there are 1000 sq. ft. in the green. Add enough water to fill the tank.

4. Divide the green into quarters and sprinkle for 15 minutes on each quarter.

Obviously, if we wish to cover the green in less than one hour, we will use a larger disc.

In order to give some idea as to the rate of flow from the tank, the following table is given. The rates of flow are for water. Solutions of different viscosities will flow at different rates. Ordinary solutions of sulphate of ammonia will flow at the same rate as water. Where other solutions are used it will be necessary to determine the actual rate of flow.

Rate of Flow from Tank.

Disc	Size	Gals. hour	Time required to empty tank
1	⅛	8.2	1 hr. 13 min.
2	3/16	15.4	39 min.
3	¼	25.5	23½ min.
10	9/64	10.0	1 hr.
20	7/32	20.0	30 min.

In some cases the greenkeeper may wish to apply a solution of given strength. In this case it is merely necessary to know the rate at which water is supplied by the hose from the hydrant, and then use a disc which will supply the proper amount of solution. The rate of flow through the hose is as given below, with a ⅛ inch nozzle in the proportioner. The pressure is taken at the proportioner. It will be noticed that a change in pressure from 30 to 50 pounds makes only a small change in rate of flow.

Quantity of Water Supplied by Hose.

Pressure, lbs.	Gals. per hour
30	140
40	155
50	175

The strength of solution obtained with different pressures and different discs is given below.

Ratio of Solution from Tank to Water from Hose.

	Disc		
Pressure, lbs.	1	2	3
30	1-17	1- 9	1-5
40	1-19	1-10	1-6
50	1-21	1-11	1-7

Suppose we wish to apply 1 quart of solution to 50 gallons of water; in other words, a ratio of 1 to 200.

Let us assume a pressure of 40 pounds. At this pressure the flow of water will be 155 gallons per hour. The flow of solution should then equal 155÷200 or .77 gallons per hour. As this would require a very small orifice in the disc, water will be added to increase the rate of flow from the tank. Let us assume that we wish to sprinkle for 30 minutes. We would then put one-half of .77 gallons or 3 pints of solution in the tank and add enough water to fill the tank. Then use disc No. 20 which will empty the tank in 30 minutes.

JACOBSEN OPENS L. A. BRANCH

Jacobsen Mfg. Co. has established a warehouse branch under the direction of K. L. Barnes, at Westland Warehouse, Los Angeles.

Mr. Barnes was formerly from the Kansas City territory of the Jacobsen Mfg. Co. and has had many years' experience in the sales and servicing of Jacobsen power lawn mowers.

This new western Jacobsen branch will carry a complete stock of mowers and parts, and also expert repair service will be available.