diaphragm and these sometimes will become vulcanized, and all you have to do is just to change the diaphragm.

#### Mr. Wilson,-

And this can be done while the steam is on?

### Mr. Bannon,-

Yes. All you have to do is just to take the diaphragm off and put another one on.

### Mr. Shales,-

With other systems that is not necessary, because they do not use rubber in the diaphragms. They can use the air absolutely dry making a perfect system, that cannot be done where rubber diaphragms are used, because the rubber would not stand it.

#### Mr. Wilson,-

Supposing the steam drops below the atmospheric pressure, what effect would that have upon the thermostat in general?

## Mr. Bannon,-

Of course if there is no heat in the radiator it would have no effect on the temperature of the room.

### Mr. Wilson,-

It can be done by putting so little steam into the system, that it will condense so fast that it will really form a vacuum on the pressure side.

# Mr. Bannon,-

I have in mind the Johnson system where they put a diaphragm valve on each side of the radiator. The temperature rose and the steam condensed in the radiator forming a vacuum from twenty to twenty-four inches, then when the thermostat opened and released the air from the tops of the diaphragms, the springs placed on the spindle of the valve in the diaphragms raised them from their seats destroying the vacuum and admitting steam to the radiator very rapidly. That system is not perfect because it is absolutely necessary that the valves be tight at all times.

# Mr. Nash,-

I would like to make a suggestion. It is good practice to put a spring of sufficient tension to open the valves under any conditions.

## Mr. Allen,-

I have been very much interested in all that has been said,