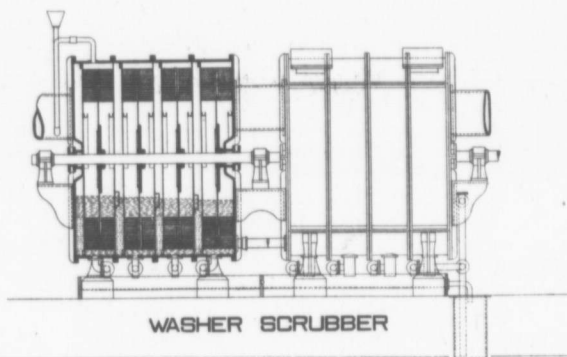


tight compartments, each of which is arranged with the overflow a little higher than the preceeding one from the gas inlet to the outlet end, so that the clean water entering the last or outlet gas chamber flows from one compartment to another until it finally overflows to the well. The gas enters at the strong liquor chamber, and proceeds in the direction as shown in the sketch. The shaft being constantly rotated at about



four revolutions per minute, present to the gas a large and perfectly wetted surface. The usual method is to have at least two of these machines and work them in series, the first fed with weak liquor and the second as a finisher with clean water. In this way the ammonical liquor can be worked up to any desired strength and thus command a higher price commercially.

Water at ordinary barometric pressure and atmospheric temperature will absorb ammonia in gas about 783 times its own volume, the power of absorption decreasing with an increase of temperature. Other impurities partly removed in the washer scrubber along with the ammonia are, carbonic acid gas and sulphureted hydrogen, a larger quantity of the former being removed on account of its stronger affinity for ammonia. Below I give the composition of the gas leaving the scrubbers:

H ₂ S—500 to 800 grains	} per 100 cubic feet.
C O ₂ —700 to 1,100 grains	
C S ₂ —30 to 45 grains	