of this Journal, that very light naphtha is never employed for purposes of adulteration.

I would say that I have come across several samples of so-called turpentine—sold as “pure”—which contained a high percentage of light naphtha, otherwise “gasoline.”

R. H. ACOTT.

A PECULIAR CHLORATE EXPLOSION.¹

A short time ago Dr. McKenna read a paper before this section on the hazard of explosives in which he gave account of several explosions caused by chlorate of potash. Since then several unusual cases of this kind have come to my notice. The facts as reported to me are as follows: A company in this city, makers of small castings, has been purchasing kegs from a second-hand dealer. These were used for packing castings for shipment.

In the first case some of these kegs containing ingots of aluminum and zinc were being unloaded on a wharf when a keg took fire. The laborers supposed the kegs contained grains of powder and wanted to throw the entire lot into the river. The owners of the foundry could not account for the fire but thought some mysterious property of the zinc and aluminum might have caused it. No further investigation was made in this case.

A few weeks ago a shipment of small iron castings was made to a neighboring city. When unloading one of the kegs from a truck, a slight explosion occurred; two men were slightly burned while the keg burned rapidly enough to heat the castings quite hot. On investigation it was discovered that this keg had been obtained from a dye works and had contained chlorate of potash. The second-hand dealer claimed this lot of kegs had been thoroughly cleaned before delivery to the iron works but however that may have been either some chlorate had lodged in the crevices and escaped detection or else the wood had become saturated with it from standing in a damp place. The jolting of the castings struck a spark which fired the mixture of chlorate and wood.

Chlorate of potash is used by dyers and in this vicinity; where there are many dye houses, there must be a large number of these kegs to be disposed of in some manner.

Fortunately all the fires of this kind of which I am aware occurred in the open air and did no damage. They might just as easily have occurred in a warehouse or on shipboard. In fact the foundry using these kegs, ships castings abroad and it might be a very serious matter to have a fire of this sort in the hold of a ship.

Evidently purchasers of second-hand kegs have another danger to be guarded against, and we have another possible cause for fires of mysterious origin. GEORGE C. DAVIS.

A NEW COMBUSTION PIPETTE.

My experience of several years in gas analysis has led me to construct a new form of combustion pipette that I have found superior to any other form I have yet used. My duties as Gas Analyst of Sioux City have afforded me ample opportunity to test this apparatus, and it is with assurance that this form will be of interest to those engaged in gas analysis and of decided practical value that I bring the pipette to public notice.

¹ Read before the Philadelphia Section, American Chemical Society.

The combustion tube—see figure—resembles the familiar Hempel burette with the exception that the cylinder is open to the full diameter of the tube at the base. This opening is closed by means of a stopper through which

Fig. 1.

pass insulated wires connecting to a platinum spiral extending the entire length of the tube. One length of the heavy wire is insulated the full length of the cylinder to prevent a short circuit by the confining liquid, mercury. Glass insulation has been found to be the best. The lower ends of the wire pass through the weighted base to binding posts, which in turn may be easily connected to a battery. A leveling bulb connects to the tube by a heavy rubber tube.

Among the advantages of this apparatus over the old