Organic Lab., Univ. of Leiden, Holland.

Prof. Dr. Franchimont, Director. Dr. Montagne, Curator of Fine Products.

1. Wonderful cleanliness — separate rooms, with assistants for washing apparatus. Whole building for organic chem exclusively.

2. Hoods specially adapted for working with dangerous substances.

3. For fractionally distilling liquids under practically an absolute vacuum, where water pump is used — insert into system tube containing small piece of charcoal from which liquid air is continually evaporating — lock this up. See Bonn.

4. Ullmann bomb furnaces — benzene put into iron tube after putting in sealed tube. Head is then soldered on and kept cool by water circulating in jacket on head. Pressure outside & inside ... no explosions.

5. Usual bomb furnace — inner air chamber, by which temp. can be controlled within 1°. Iron heads always screwed on outer tubes before starting the flames.

6. Electrical device for drawing curtains in lecture room when lantern is to be used. Controlled from desk.

7. Desks — supplied with horizontal, sliding blackboard wood tops, covered with white paper which is changed every week. Drawer full of fine sand, with scoop, for putting out fires.
8. Closets — Made dust-proof by system of grooves. Floors of closets all raised above room-floor. All museum bottles have glass caps.

9. Mixed CaCl₂ in sticks, for drying liquids without great loss, as in granular CaCl₂.

10. Apparatus for transferring an acid from its water solution to ether. Ether distilled from inclined flask, concentrated, condensed & passed from bottom to top of water-coil, which was also heated on bunsen.
Bonn · Friedrich-Wilhelm Universität.

Prof. Dr. R. Anschütz.

1. Liquid-air attachment for vacuum distillation
   
   ![Diagram of a liquid-air attachment for vacuum distillation]

   - To pump and manometer.

   After exhausting most of air, immerse the two bulbs in Dewar flasks containing liquid air. Charcoal takes up all air left.

2. Lead-covered laboratory tables. In use 20 yrs.

Heidelberg

Universität


2. New H₂O absorbing apparatus for C and H detec.

   ![Diagram of a water-pumping apparatus]

   CaCl₂, inserted by the user, is removable.
1. Table for Blast Lamp. (Made out of packing case)

2. Air bath for heating funnels. Asbestos or porcelain rings at top. Hot plate furnished by Germer & Company. Also want these plates for... (incomplete)

3. For Combustion Room - O₂ piped direct from bomb (through valve) reducing pressure to 30 mm Hg. (and through furnace cond. tube in red hot Cu). To combinatorial trains. Pipes must be Zn lined, as Zn is formed by quick O₂. Stop cock connections to drying trains must be glass, as brass cocks can rust.
made sufficiently tight. No gasometers in combustion room.
System for air —

When lower bottle full, positions are merely exchanged.

4. Large glass \( \text{H}_2\text{S} \) app. (each Küster). Requires filling once every semester.

5. For hard water, use a permittite filter for const.-level water-baths—overflow at such a level that baths are maintained at proper level.

Remove filling and leave over night in salt water when necessary.

6. Apparatus for vacuum pump with "Normalschiffe" so that every piece fits into every other piece, making many combinations possible.