



## **PDHonline Course C260 (3 PDH)**

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# **Planning Subsurface Investigations**

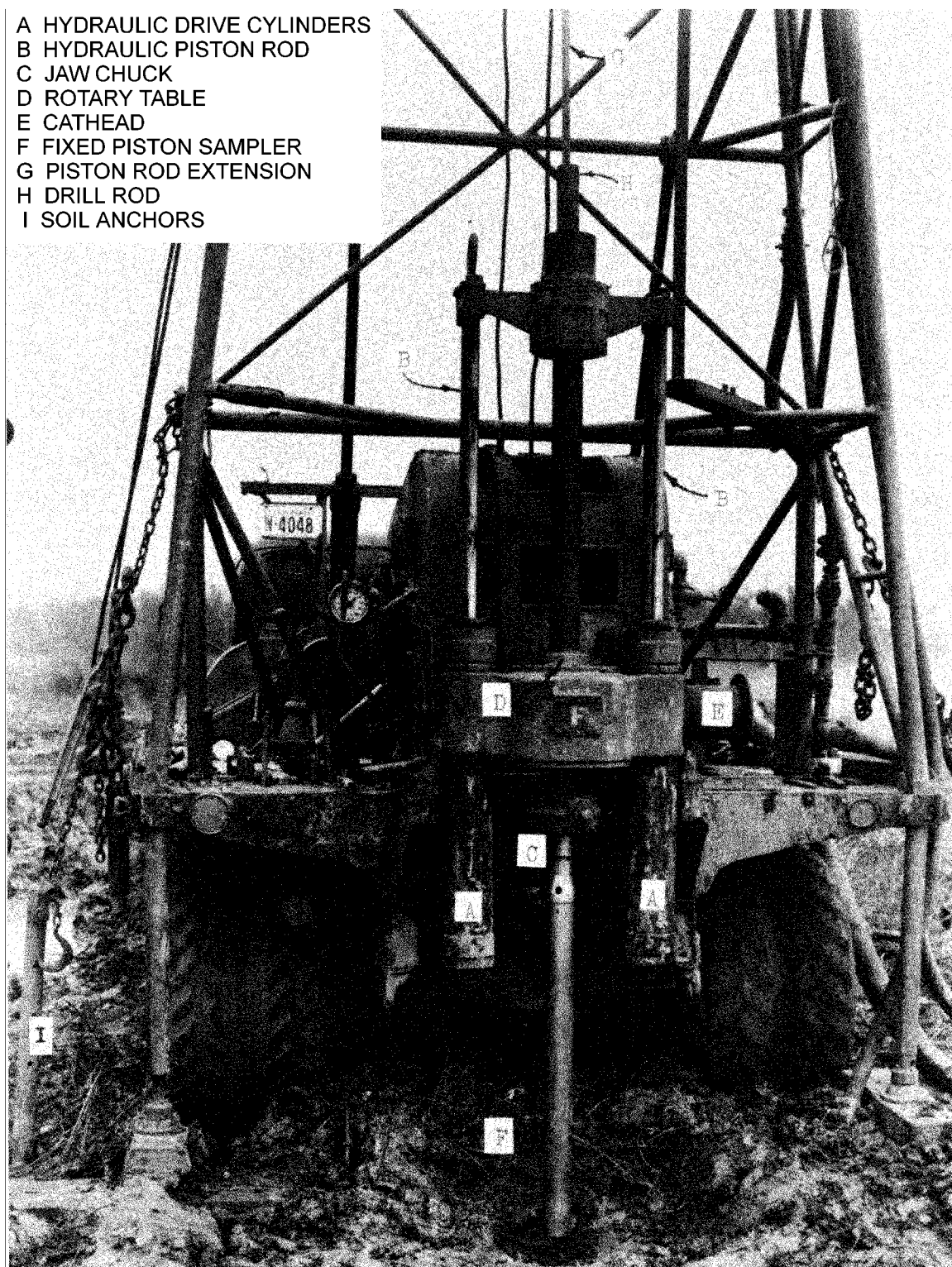
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**2020**

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**Figure 3-2. Photograph of a truck-mounted rotary drill rig with specific features of the drill rig identified**

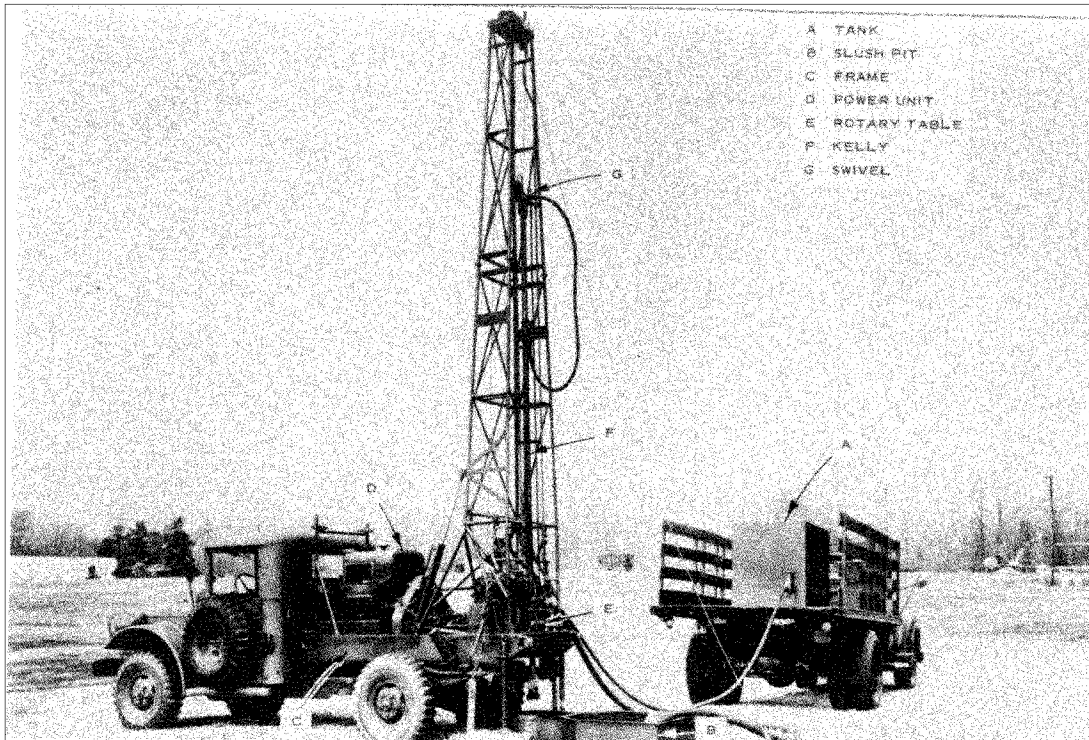


Figure 3-3. Truck-mounted rotary drill rig with a chain feed drive system

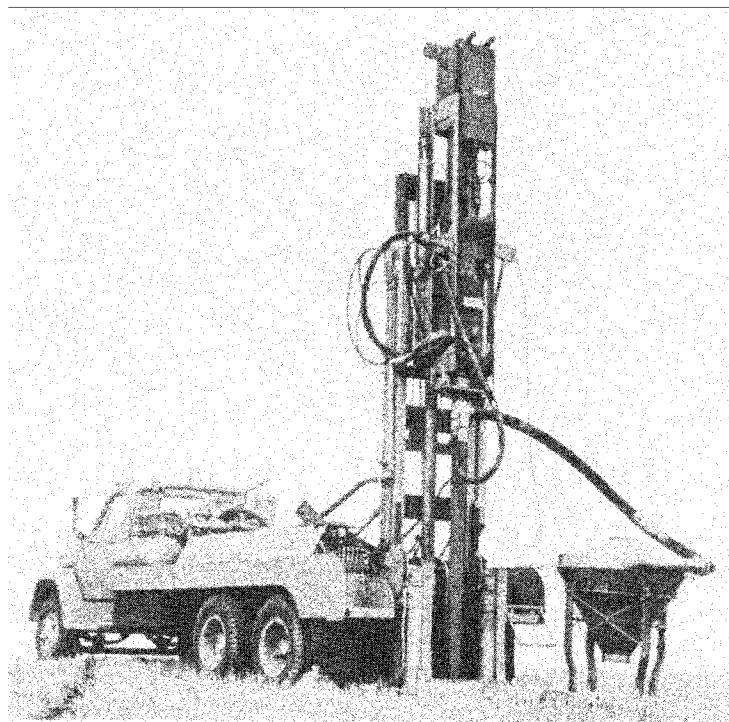


Figure 3-4. Photograph of a Becker hammer drill

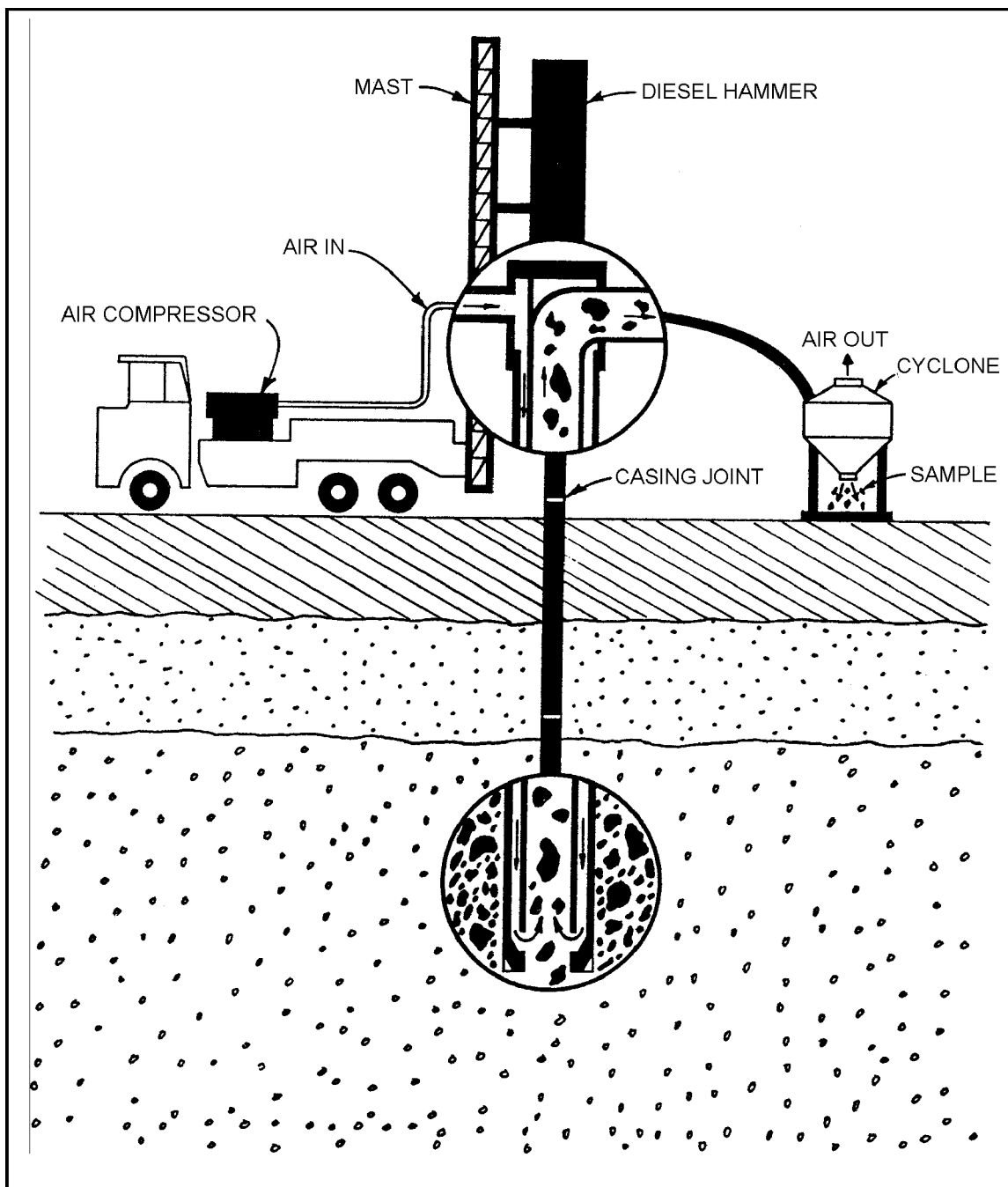


Figure 3-5. Schematic of Becker hammer drilling and/or sampling operations using reverse air circulation (Harder 1993)

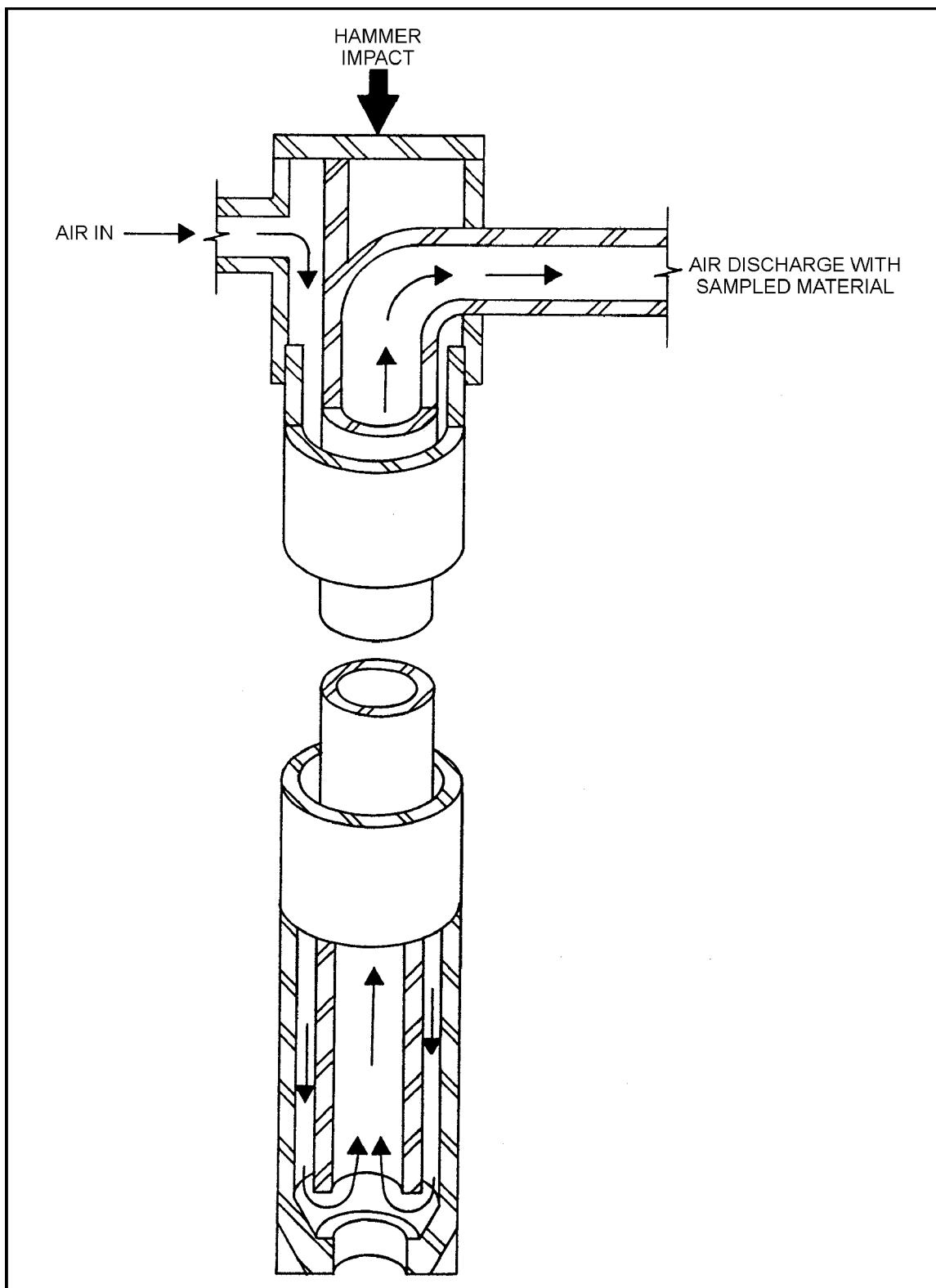
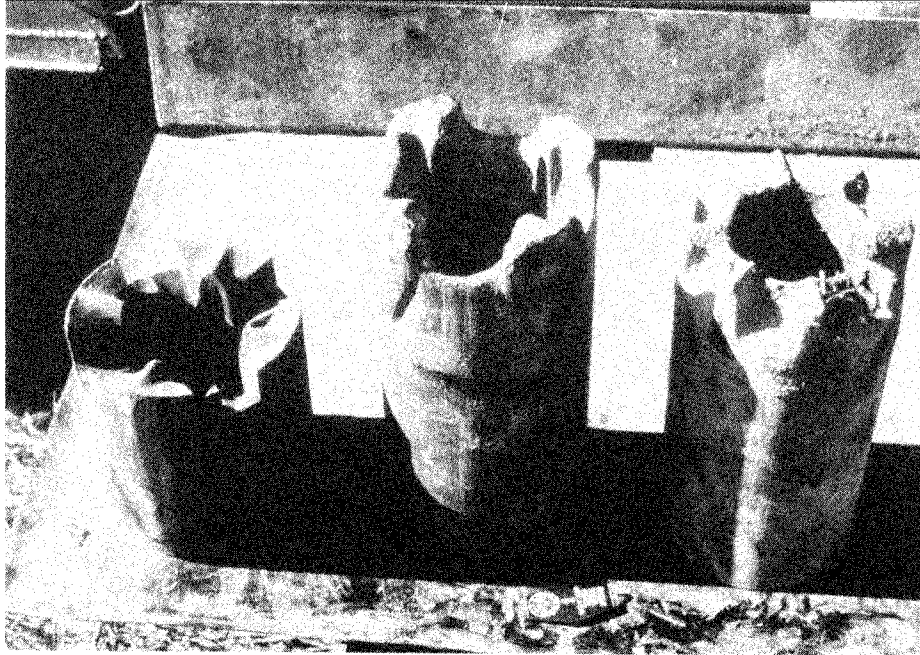
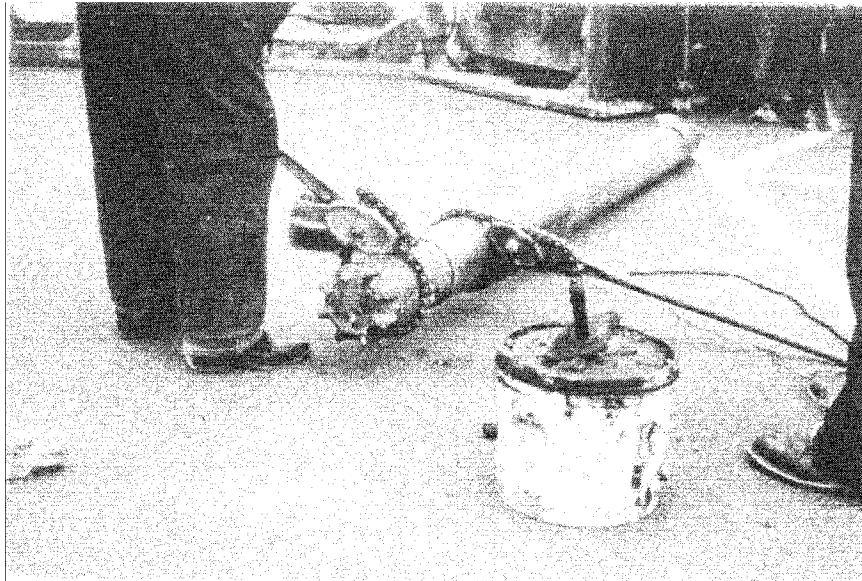


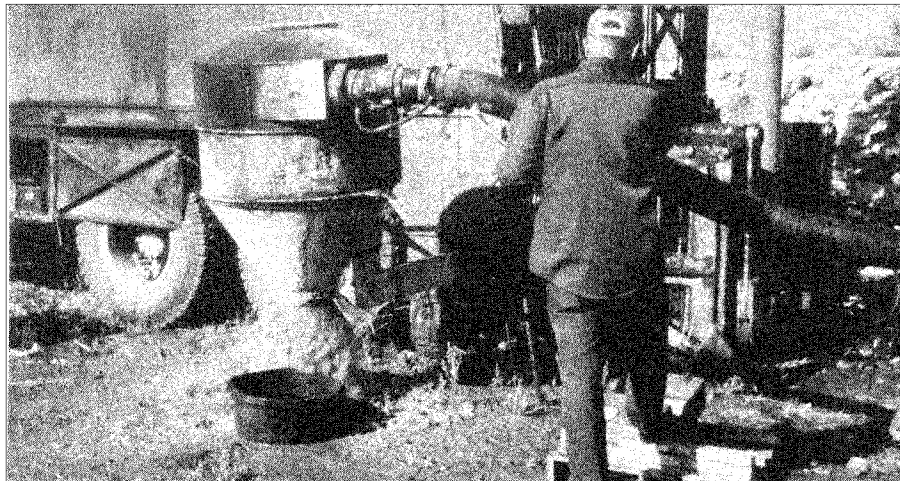
Figure 3-6. Isometric diagram of the double-wall casing with reverse air circulation for removal of cuttings (Harder 1993)



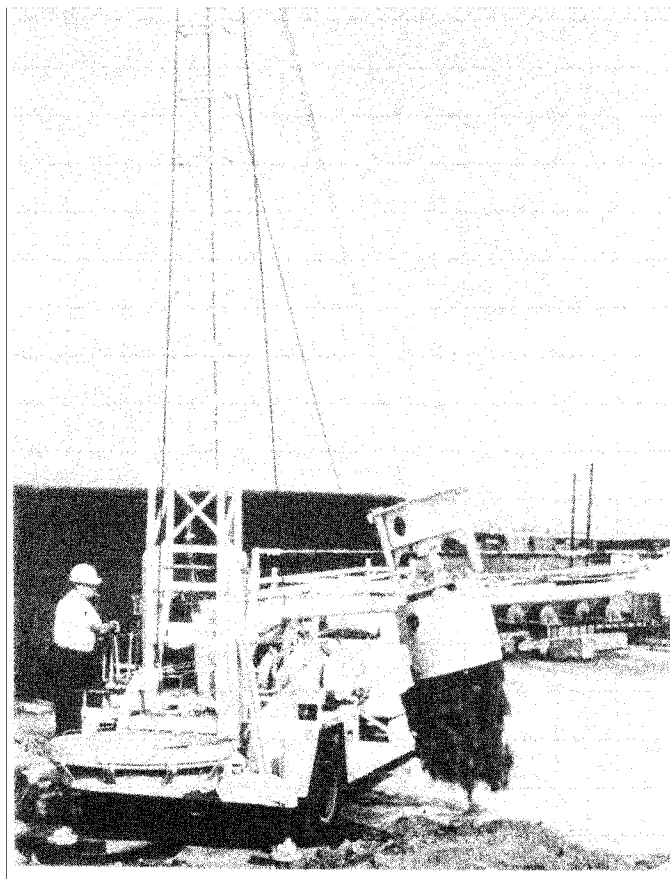
**Figure 3-7. Photograph of several open-type Becker bits (Harder 1993)**



**Figure 3-8. Photograph of a plugged bit which is used to obtain Becker penetration resistance (Harder 1993)**



**Figure 3-9. Soil is collected by a cyclone during Becker hammer drilling operations (Harder 1993). Note: Safety is a very important consideration for Corps of Engineers projects. Safety items, including hardhats, gloves, safety shoes, protective clothing, and dust or vapor masks, should be worn, as appropriate, for the particular drilling and sampling operations**



**Figure 3-10. Photograph of a bucket auger drill in operation**