What is wrong with this sampler?

A sampling of current dictionaries for the term "sampler" reveals by far the most entries on the digital sampler, used in signal analysis or in music (see, e.g., in Wikipedia for a start…) than what is intuitively meant here related to physical sampling (or sampling using sensors, probes etc.) as used in mining, minerals extraction, process industries a.o. A diligent search reveals only a few such definitions, which all would seem to match well the TOS community's tacit understandings, however, there are still differences. Thus:

Sampler *n*. Thing that takes samples. (*The Oxford Guide to the English Language*).

Sampler *n*. A mechanical or other device designed to obtain small samples of materials for analysis; used in biology, chemistry and geology. (McGraw-Hill *Dictionary of Scientific and Technical Terms*)

Sampler *n*. One that collects, prepares, or examines samples. (*Merriam-Webster On-line Dictionary*, http://www.merriam-webster.com/dictionary/sampler)

At the outset therefore a "sampler" can be both a "thing", a mechanical or other device or a "person" ("one that collects… samples").

This is the start of a new mini-column, intended to raise the reader's interest: WHAT is WRONG with THIS sampler no. 1? The reader is encouraged to analyse the samplers presented, and to note which of TOS' sampling errors are committed. Comments and answers to ke@geus.dk.

Container B

Outlet for Container C
The "lot"

Container A