of tumbled boulders, which were rolled into a circular trench. On these, low masonry drums four feet in diameter were built, and on the drums the eight supporting pillars of the tower were erected. Arches carried the closed circular upper room at the top.

Mortar was a crudely made mixture of sand and lime, of a type that might have been made at any time from the eighth century until the invention of portland cement. The tower room had two coats of plaster, one white, one gray, of the same kind of material.

Beneath the tower was a layer of charred wood, covered thinly with soil and mixed with fallen plaster. This was left by a fire, when British soldiers burned the tower's floor during the Revolutionary War.

Digging in the soil under the tower turned up quantities of pottery and glass fragments of Colonial date, together with pennies dated from 1696 to 1700, also one Connecticut penny dated 1787, and some nails, buttons and other miscellaneous metal objects. There was nothing that could be identified as Norse, or of earlier than late seventeenth-century date.

It is known that Governor Benedict Arnold of the Colony of Rhode Island, grandfather of the well-known Revolutionary War general, had a wooden windmill on the tower. However, it is not known whether he put up the stone structure, or simply took advantage of it because it was already there.

So as of this date, the riddle of the tower, which inspired Longfellow's famous poem, "The Skeleton in Armor," and many reams of less noteworthy writing, still remains unsolved.

Science News Letter, October 9, 1948

the Expedition's activities (SNL, Aug. 28, Sept. 4).—Bill Terry, Field Executive, U. of Calif. African Expedition.

Science News Letter, October 9, 1948

There are some 1,400 separate parts in an electric refrigerator.

A federal soil scientist says that there are some 1,300,000,000 acres of unused land in the world that could be developed for crop production.

A standard-gauge railroad at Climax, Colo., is 11,319 feet above sea level; this is the highest elevation at which any standard-gauge American railway operates.

#### SCIENCE NEWS LETTER

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## **Letters To The Editor**

#### Gardens Out of Swamps

"Wasting Wet Acres" (SNL, Aug. 28) is a most timely article and should have the close attention of all sincere conserva-

The waters of the swamp lands are saturated with the minerals necessary for plant growth. To drain these waters off is practically to leach out many of the mineral elements and thus impoverish the land. True, the excess of water acts as a deterrent for the growth of many plants, which are acclimated to drier soil. But how about hydroponics?

Would it not be possible by the addition of certain salts to convert a swamp into a great hydroponic garden? - Adolph H. Weber, Berkeley, Calif.

By no means are all wet areas rich in minerals needed for plant growth. Acidwater bogs (as distinguished from neutralwater swamps) are notoriously poor in minerals; either they are locked up in unavailable forms, or they just plain aren't there at all, having been leached out long ago. In some swamp areas, too, the leaching effect is pretty bad.

Another thing: Hydroponics, as practiced now, is better adapted to rainless, or nearly rainless, climates. . . . How to modify hydroponic methods to make rain an advantage instead of a drawback will probably take some hard work by experts.

#### **Good Coverage**

This is just a note of appreciation for all of the fine stories you are doing for the University of California African Expedition in Science Service publications. We all sincerely appreciate the accurate reporting and good coverage that you have given to

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