

by more magic. Magic is used to bring an eloping wife back to her lonely husband. Magic has power to bring rain, and to cause animals to appear.

But understanding the Australians is no neat guide to understanding native life. It now appears that explorers who reasoned that all natives act like Aus-

tralian have been as wrong in their science as the Africans who earnestly try to apply cattle-handling devices to control thunderstorms.

This article was edited from manuscript prepared by Science Service for use in illustrated newspaper magazines. Copyright, 1935, by EveryWeek Magazine and Science Service.

*Science News Letter, August 10, 1935*

#### AGRICULTURE-ENGINEERING

## Invention Still Has Task Of Freeing Small Fingers

**G**RAIN harvesting machinery is whirring on a million farms, and when the fields have been cleared tractors will pull plowshares through the soil, preparing it for fall sowing. Machinery has lifted much of the load that used to wear out men's backs and arms on the farm, just as machinery in factory and on the city street has liberated urban workers—though often at the cost of a period of distressful "technological unemployment."

But there still exists a great need for further invention that will liberate the fingers of children, bound to such slave-labor tasks as hand-weeding onion fields, thinning sugarbeet rows, picking cranberries in the bogs. Ordinary farm chores may be no great hardship on children; they may even reminisce about them in later years, as Herbert Hoover did not long ago about his exploits as a youthful potato-bugger. But gang labor by children, on corporation-owned industrialized plantations, is quite another story. There can be sweated work in the fields as well as in the factories.

Yet if we would do away with this nasty remnant of slavery, we must fairly face the growers' dilemma. The public demands cheap onions, cheap sugar, cheap berries. All these crops, and others, require much nimble finger-work. The grower must either exploit children or raise prices—and face a buyers' strike that may force him out of business.

The alternative is liberating invention, analogous to the invention of nail-making and chain-making machinery, which released thousands of child-slaves who once sweated and starved in the light ironware trade of England.

Admittedly, machinery for finer manipulations is hard to invent. A gang-plow that will rip up soil by the ton is easier to think up than a device that will pick raspberries and pass by the leaves and twigs, or a machine to pluck up tiny weeds and spare the young onions. But

if we are to ease our social conscience of our present economically dictated sins against childhood and yet redeem certain businesses which we insist on retaining, such devices will have to be produced.

There may, of course, be non-mechanical solutions for some of the problems. Conceivably, there might be some soil treatment, by heat or chemicals, that would destroy all weed seeds before a crop is planted, doing away with the need for hand weeding. Greenhouse and nursery-bed soils are now heat-treated, to kill disease-fungi before tobacco and tree seeds are planted. But if such methods are attempted, they must be made much cheaper than they are now. Furthermore, harm must not be done to the soil itself, and to the useful microorganisms that live in it. The children must be emancipated, but we must be careful lest we set them free into a breadless house.

*Science News Letter, August 10, 1935*

#### ANTHROPOLOGY

## Bones of First Americans Are Still Missing

**S**Eeking the first inhabitants of America, whose skeletal remains have not yet been discovered, Edgar B. Howard of Philadelphia is now on his way to Russia.

The hunt for information regarding these earliest Americans is being extended to Siberia, whence they came, following five years of extensive exploration by Mr. Howard which have failed to show any of the secret burying places in this country.

"Folsom Men," as the oldest people of the American wilderness are scientifically termed, are known to have existed, from the trail of their stone weapons and bones of extinct animals they hunted and ate. Mr. Howard's explorations, which are conducted for the Academy of Natural

Sciences of Philadelphia and the University Museum, have furnished evidence that these hunting people were in America long before the Basket Makers—oldest known Indian culture, which dates from about 2000 B. C.

Not satisfied, however, with his conclusion that man lived in America at least 10,000 years ago, Mr. Howard has urged that "what is most needed is to find Folsom Man himself."

In Russia the American archaeologist expects to examine fossil finds that have been made in Siberia, and possibly to enlist the active interest of Soviet scientists in further work along these lines.

If Folsom Man continues to prove personally elusive in America, it is hoped that his physical type and other important facts about him can be detected among remains in his old home land in Siberia.

*Science News Letter, August 10, 1935*

#### ENTOMOLOGY-PHARMACY

## Preferences of Drug Store Beetles Subject of Study

**"D**RUG store beetles" are replacing "drug store cowboys" as the principal pests and annoyances of the corner druggist. That is one way of putting the conclusions of the Department of Entomology of the Oregon State Agricultural Experiment Station, after making an extensive study of beetles and bugs found in pharmacies. Particular attention was paid by the entomologists to determining the drugs preferred by the marauding insects for their repasts.

The investigators were unable to say whether two particularly greedy species, the drug store beetle and the square-necked grain beetle, nibbled on sleeping powders after a night of "whoopie" on sarsaparilla and ginger roots. They did find that both preferred crude drugs containing an abundance of sugar in their rhizomes or roots. The taste of the drug seemed to make little difference in most cases, although a few of the tasteless drugs rather seemed to be favorites.

The two species differed in their likings. Out of the twenty-two drugs which were found infested, the drug store beetle seemed to prefer, among other less common drugs, the roots and rhizomes of the sarsaparilla, the male fern, meadow saffron, burdock and licorice. The square-necked grain beetle found rhubarb rhizomes and ginger roots more to its liking, while they both seemed to fancy the iris rhizomes and the bark of the burning bush. Other well-known drugs were tabulated in the report, such as chicory, caraway seed, parsley root, linseed and ginseng.

*Science News Letter, August 10, 1935*