

None of these things, he explains, will avail to wring water out of arid air. Some of the proposed remedies are just naive magic: the scattering of soap, for example. This might be termed "associative magic," the basis of reasoning being that where there is soap there must surely be water.

Other proposed drought remedies, like the use of cooling chemicals and sprinkling sand from aircraft, smack of the scientific. They would expend energy enough to condense the water from vapor to liquid drops, and thus bring rain. But the amount of energy needed to assemble a rainstorm out of

heated air is so great that all the rain-making munitions that could be piled up over a whole township would not produce even a timid little shower.

Proposals to use explosives are the surest smile-provokers at the Weather Bureau. They have been advocated as rainmakers ever since the earliest days of gunpowder. They have also been advocated—and tried—as means of stopping hailstorms. Apparently a big, healthy "bang!" in the sky is supposed to bring whatever results are desired at the moment, whether more precipitation or less.

*Science News Letter, June 23, 1934*

#### ANTHROPOLOGY

## Human Missing Link May Lie Entombed in Solid Rock

ONE of the most delicate tasks scientists ever had thrust upon them engages four men and women at the Royal College of Surgeons in London.

In the basement of the College lie tons of hard and heavy rock. In the large blocks may be seen outcroppings of bones, human bones, which the eminent British anthropologist, Sir Arthur Keith, pronounces "the most imposing specimens of fossil humanity I have even seen."

It is up to the squad of workers, led by Theodore D. McCown, an American, to get those fragile, brittle, imposing specimens of humanity out of their hard beds. To meet the situation, the squad is armed with an electric dental grinder, an electro-pneumatic chisel, scrapers, hammers, and an inexhaustible supply of scientific patience.

If the specimens of humanity can be freed without much damage, science will discover what a vanished race of men that lived 75,000 years ago was like. If the bones prove too crumbly, or the workers too impatient—? But such disaster now seems unlikely.

A cheerful report of progress on this job which the scientific world is watching has just been sent back home to America by Mr. McCown. His report comes to the American School of Prehistoric Research, of which Prof. George Grant MacCurdy of Yale is director. Mr. McCown and his assistants have been working eight months at their task, and will probably not be finished for many months to come. He

tells of removing two tons of plaster and cement casing from two of the important fossil humans, and bringing to light such features as the hidden bones of fingers and toes and the vertebral columns of the unknown ancients.

The men and women whose skeletons are thus being extricated from solid rock with such gentle care represent the oldest inhabitants of Palestine. They lived in their time in caves along the Mediterranean shore. Their ungainly frames, even half buried in a matrix that cased itself about them, seemed to reveal to science a type of human anatomy not heretofore known. That is why they were dug out of their cave tombs in chunks, so to speak, and their release from the stone is now so eagerly watched.

The unknowns belong to the age of Neandertal Man, and have many points in common with him. But some at least of the Palestine men seem to have had higher foreheads and more man-like chins than the Europeans of that rather ugly stage of human development.

Were they nearer to modern humanity than their fellow Europeans? It is important to know, scientifically, for just after the slouching Neandertals rather mysteriously emerged the famous *Homo sapiens*, our own type of modern man; and these Palestinians may be a missing link in our ancestral line.

*Science News Letter, June 23, 1934*

An intensified campaign to eradicate diseases of cattle was begun in June by officials in 24 states.

#### PSYCHIATRY

## Mental Diseases Described Frequently by Shakespeare

WAS Queen Elizabeth's favorite, Essex, the model for the misanthropic Timon in Shakespeare's tragedy, *Timon of Athens*? The suggestion that he may have been was made by Dr. Andrew H. Woods of the Iowa Psychopathic Hospital at the meeting of the American Psychiatric Association.

The *Timon of Shakespeare's* play suffered from the mental disease, paralytic dementia, which is due to syphilitic infection, Dr. Woods asserted. Shakespeare's picture of this disease is so perfect that Dr. Woods believes he drew it from the example of some prominent Elizabethan who suffered from it. There are so many points of resemblance between Essex and the hero of the tragedy as Shakespeare wrote it that Dr. Woods declared if there were documentary proof that Essex suffered from syphilis, it would settle the matter.

Shakespeare was greatly interested in mental diseases, evidently knew much about them and featured them in six of his plays, Dr. Woods pointed out. Hamlet in the play of that name pretended to have the mental disease, schizophrenia, while Ophelia in the same play showed signs of the real disease. Othello and Julius Caesar suffered from epilepsy. In addition, Othello showed the suspiciousness and savage violence of a sufferer from another mental disease, paranoia. King Lear gives a picture of the mental debility of old age. Lady Macbeth's sleepwalking and loss of memory show that Shakespeare knew the peculiar way in which hysterical patients behave.

The original Timon who lived in Athens was quite different from the character in Shakespeare's play. There is nothing in the brief accounts of him written by earlier historians and in another play about him to suggest that he had syphilis or the mental disease, paresis. Shakespeare in the first part of his play pictured Timon as much more attractive and capable than the Athenian actually was, and in the last part of the play the dramatist makes Timon's turning against his friends and the entire world not so much the result of his misanthropic nature as of the ravages of the disease which destroyed his mind.

*Science News Letter, June 23, 1934*