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ton's laws and closer to observations than Einstein's prediction of twice the angle derived by Newton's mechanics.

The shift of the Fraunhofer lines in the sun's spectrum is predicted closer by Sir Shah's theory than by Prof. Einstein. The shift comes out to one-half that predicted by relativity.

Moreover, both velocities of recession and approach are permissible for nebulae so that the universe is stable and not necessarily expanding.

Discussing the principles of Newton and those of Einstein Sir Shah says:

"Newton assumed that gravitation had an instantaneous effect, however, distant the object might be. This implied that its velocity was infinite. He further assumed that the same law of gravitation applied between two bodies, whether they were at rest or in relative motion. Later observations showed that his law was inaccurate for moving bodies.

"Einstein has given a slightly more accurate law, but at the complete sacrifice of the principles of Newton. Relativity denies the absoluteness of space, time and motion, but can hardly deny the absoluteness of angular motion or sudden change of motion.

"When a boy spins a top, does he give an absolute rotational motion to the top or does he set the entire universe revolving round the top in the opposite direction?" asks the Indian mathematician.

"Or again," he adds, "when a motorist suddenly puts on his brakes, does he stop his car or does he push the whole universe on a backward path?

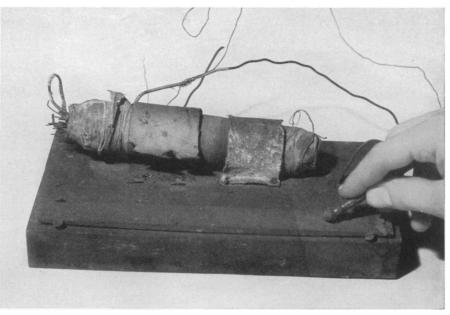
"Relativity makes the velocity of light absolute, and although it is a known finite velocity (300,000 kilometers a second), the properties of infinity are attributed to it; and no velocity, howsoever great, when added to it or subtracted from it, can ever make any difference.

## • RADIO

Tuesday, December 4, 4:30 p. m.
THE FIGHT AGAINST THE TERMITES, By Dr. Charles A. Kofoid,
Professor of Zoology, University of California.

Tuesday, December 11, 4:30 p. m. CHRISTMAS TREES, By F. A. Silcox, Chief Forester, U. S. Forest Service.

In the Science Service series of radio addresses given by eminent scientists over the Columbia Broadcasting System.



DID JOSEPH HENRY MAKE THIS APPARATUS?

Princeton University has been given the crude induction coil shown above as a gift from the estate of Dr. John MacLean, president of the University from 1854 to 1868. It is believed to have been made by Joseph Henry, American rival of Michael Faraday in the field of electricity.

"Relativity makes space finite, and yet makes its finite limit incapable of being reached except in infinite time, by making time itself slow down with distance, and ultimately become stationary."

It is to circumvent such extraordinary conditions that Sir Shah developed his new theory, which is based on more reasonable grounds and yet predicts phenomena equally as well or even better than Einstein's relativity.

It is common knowledge that many scientists have accepted relativity only because of what it would do and not because they agreed with some of the radical fundamental assumptions.

Science News Letter, December 1, 1934

PHYSICS

# Princeton Receives Coil Said to Be Joseph Henry's

N induction coil of crude design and workmanship, presented to Princeton University by the estate of Dr. John MacLean, president of the university from 1854 to 1868, has aroused great interest in the physics department because of the likelihood that it was made and used by Joseph Henry, renowned American physicist who taught and experimented at Princeton from 1832 to 1848.

Henry was one of the foremost electrical experimenters of his day, observing induced currents as early as 1830, although he failed to publish any account of his work until after Michael Faraday's epoch-making announcement of the same discovery in 1832. The machine around which the present discussion centers is of such undoubted age that many are convinced that it belonged to Henry, whose memoirs describe several experiments which must have involved the use of a coil very similar to the newly discovered one.

Science News Letter, December 1, 1934

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