

is obvious, for it must not be forgotten that we look upon the top of the towns—the roofs—and the general color of these does not differ essentially from the streets and the surrounding grounds. For that reason the cities cannot be seen. If all the roofs and the streets were painted in white I am sure that the large towns could be seen, given a clear atmosphere. Thus, you observe, the earth as seen from the moon appears quite lifeless. Nothing is seen moving on it except the clouds; only in one instance have I seen anything out of the ordinary. This was a large forest fire in western America. Even then I could, of course, not see the fire itself, but only the vast, rolling quantities of black smoke were easily discernible. Other objects which can be made out when the weather is very clear on earth are the rivers; but only the larger ones, such as the Mississippi, the Amazon, the Nile, the Volga, etc., can be seen at all. We repeatedly tried to see long railroad tracks stretching across plains, but we have not been successful in locating them, even by the use of our powerful 3-inch telescope. The intervening distance—240,000 miles—is simply too great to see such fine objects. For this reason also some of the greatest achievements of man, such as the Panama and Suez canals, are entirely invisible to us, even with the assistance of our telescope.

From the above it must become clear that comparatively small objects such as ships, trains, animals, etc., must forever remain invisible to us *Lunarians*.*

So much for the earth. As I mentioned before the stars appear much brighter on the moon than they do on earth. This again is due to the very thin lunar atmosphere. All the stars appear several times brighter to us than they do to you; furthermore, we can see with our naked eye stars such as are never seen on earth except with the aid of powerful telescopes.

The most inspiring view, however, is the milky way. It shines with a glory undreamed of on earth; its light is so powerful that objects around you become faintly visible in the dead black of our lunar night. The milky way does not appear to be as a weak blur, but it is well defined and we see myriads of stars invisible to the unaided eyes on earth.

There is one thing, however, of importance on the moon of which few people have any conception. I am referring to the meteors which are constantly raining on the surface of the moon. When such a meteor falls on the earth this is what happens:

A great mass of meteoric iron has come under the influence of the earth's attraction and is falling toward it at a speed of several thousand miles a minute. Until it reaches the outskirts of the earth it meets with no resistance, for it moves in the vacuum of universal space. The instant it penetrates the earth's atmosphere an enormous friction is produced between the meteor and the air, and the result is that the meteor becomes wholly or partly melted. Most of it volatilizes and goes up in smoke, to fall down subsequently in the form of fine dust; only a comparatively small solid part reaches the earth, where it usually buries itself in the ground. Thus when we see a "shooting star" we see in reality a stream of fire produced by the melting of a meteor.

Now, the moon with its pitiful atmosphere affords no such protection as does the earth's atmosphere. Meteors crash about us with an alarming frequency. They come without any warning whatsoever. Some are as large as a watermelon and some as big as a small house. You can

*Term applied to inhabitants of the moon.

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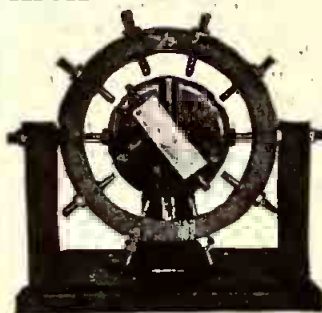
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hardly imagine what happens when such a heavenly projectile, moving at the frightful speed of from 2,000 to 3,000 miles a minute, collides with the moon.

The noise of the impact is absolutely overwhelming. The crash of a cannon shot of a 15-inch gun is soft hand-clapping in comparison with it. The ground trembles violently for miles around, and if you are less than 500 yards from the scene one will usually be blown off his feet by the concussion, notwithstanding the very thin lunar air. If the meteor happens to strike a rocky or granite surface the result is even more awe inspiring. As a rule, in that case the whole meteor melts in an instant and goes up in a cloud of white-hot metal vapor. If you are near enough, say within one-half mile, the heat generated by the impact will become unsupportable for a short length of time, and within a few minutes exceedingly fine metallic dust will rain down upon you. It sometimes takes hours for this reddish dust to settle down.

Thus it can be imagined that it is rather dangerous to walk on the moon's surface. This is particularly true in November each year, when the earth and the moon pass through the meteoric "streams." At such a time I would not care to be present on the surface of the moon, and would prefer the lunar caves. Furthermore, I . . .

Münchhausen did not finish his sentence. There was an abrupt, sharp click in my phones and the ether was ominously quiet once more. For some time I tried frantically to "raise" him, but in vain; he did not reply to me. I became highly alarmed about his safety. Had one of the meteors struck him and killed him? I could not tell. So I finally left my wireless laboratory with an uneasy feeling that everything was not quite right.

(To be continued.)

TELEVISION OR THE PROJECTION OF PICTURES OVER A WIRE.

(Continued from page 132.)

tight structure, made up of a very large number of extremely small metallic cubes, which are all carefully insulated from one another, but, however, presenting a smooth, clean (metallic) surface to the cathode ray discharge on the one side and in contact with a suitable gas, as, for instance, sodium vapor, on the other. It is proposed to construct these screen "cubes" of some metal, like rubidium, which readily discharges negative electricity under the action of a ray of light, the negative charge being imparted to the cubes whenever the thin, pencil-like beam of the cathodic ray falls upon it. The receptacle "K" in the tube chamber is filled with some gas, such as sodium vapor, for the reason that such a gas conducts negative electricity far more readily under the influence of light than in the dark. A metallic screen of gauze, parallel to "J" in the tube is placed at "LL," and through this screen the image of the object at "N" is projected by means of the condensing lens "M," until after passing through the vapor of sodium it is eventually focused on the screen "J." The gauze screen "LL" is electrically connected through a line wire, as seen in Fig. 3, to the metallic diaphragm plate "O" in the receiver tube "AI."

Referring now to the receiving instrument, as indicated in our illustrations at Figs. 1 and 3, there is placed at the end of the Crooke's vacuum tube a fluorescent screen "H," and upon this screen, under certain conditions, which will be explained directly, the cathodic rays impinge, and certain parts of this screen are searched out every tenth of a second by the thin ray, under the combined action of the two A. C.