## Sleep—*Continued*

But we must remember he was a broken man at the age most men are in their prime. Regarding the small amount of sleep Thomas A. Edison is said to take, Harvey Firestone says he has a good laugh every time he hears the story. Edison has always taken innumerable cat-naps during the day and although his night sleep may have been short, his total daily amount was that of the average man.

There are indications that the average person is not getting enough sleep to fill nature's requirements. This is evidenced by the need of alarm clocks to get many people started on the day's work, and by the widespread popularity of getting caught up on sleep on Sunday mornings.

Many changes unknown to the individual take place during sleep. When a noisy taxicab passes a sleeper's window, for instance, there is a change in his blood pressure caused by the noise, although the sleeper is not awakened at the time. Between four and six o'clock in the morning, when sleep is light, these disturbances which we do not consciously sense are responsible for the predicament of many persons who wake and toss about restlessly. The crash of a garbage can onto a paved alley or the passing of the milkman have caused many worries about "what's the matter with me that I always wake up at five o'clock lately?"

With each question about sleep we have answered, the answer has raised a dozen new questions which are important and which can be answered in turn only by experiments. We have discovered, for instance, that during the first two hours of sleep there are some rather intense body rebuilding activities taking place. What these are we do not know, and moreover this is a question to be answered by the chemist. Chemists working in the United States Public Health Service and at the University of Chicago have not found what this chemical rebuilding is.

A race which does without sleep, however, is well on the road to a race of mentally disordered people, probably within the first generation, for sleep is not merely a great restorative, but its dreams are often a safety valve for sanity. So when such a pill appears, if ever, I would warn you still to take no substitute for real sleep, lots of it, under the best conditions, and dream pleasantly to your heart's content.

*Science News-Letter, June 9, 1928*

## High Speed Not Harmful

*Aviation*

By Thomas Carroll,

Mr. Carroll is chief test pilot of the National Advisory Committee for Aeronautics.

High speeds "nearing the limit of endurance of human body" are being frequently reported in aviation. Automobile speed tests also give rise to similar expressions.

Anything over two hundred miles an hour seems sufficient to excite the phrase. And it would be just as untrue if the speed were a thousand miles an hour as though it were twenty-five.

Speed itself has no effect whatever. At least we have found none at three hundred miles an hour. True, if parts of the human body are exposed to the direct wind of such speedy passage unpleasant consequences must be expected. But this is not in contemplation, for the person attaining these speeds is carefully shielded from the wind.

There is no doubt that the human body would not stand such speeds were they shot from a gun or from a catapult, but in any ordinary means of flight or locomotion there is no element of acceleration comparable to that.

The human body does not stand acceleration well. This is well known and proven. Rapid acceleration or deceleration drives or draws the blood away from the nerve centers producing momentary blindness or other malfunction of the body. But fortunately, it is almost impossible to continue the force for more than a moment and the after-effects seem to be conspicuous by their absence. The first symptoms of the effect appear in an amber tinting of the vision, as though you had clapped on a pair of amber glasses, followed, if the acceleration is maintained, by darkness. The recovery is rapid and complete.

The effects are made negligible by either of two extremely simple means, by wearing a corset-like belt such as is worn by polo players, or simpler still, by letting out a good lusty yell.

*Science News-Letter, June 9, 1928*

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An anonymous philanthropist has promised the University of California $5,000 a year for the rest of his life to be used in studying the prevention of children's diseases.

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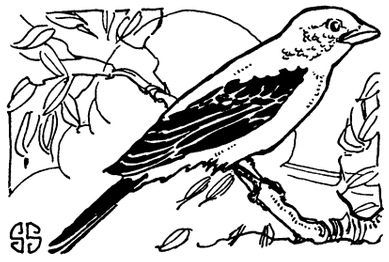
A carload of 300,000 insect specimens collected in the Malay Archipelago during 15 years has reached the Smithsonian Institution at Washington.

## Nature Ramblings

By Frank Thone

*Natural History*



### *Scarlet Tanager*

If you hear something that sounds very much like a robin's song, but punctuated with a frequent "chip-churr," it is the scarlet tanager you are listening to. He should not be difficult to see, either, for he is as conspicuous as a Kentucky cardinal, though his red is of a slightly different shade. There is no reason for confusing him with a cardinal, however, for he has no crest, and his wings and tail are black. It is really a most striking uniform, worthy of the brave days of the eighteenth century, when regiments were as brilliant as the poppy fields they deployed in.

The tanager, however, sports his grenadier coat only while he is courting, and during the early days of his family responsibilities. After that he sheds it and takes on a sober civilian suit of olive green, to match his wife's dress; for unlike the cardinal's mate the female tanager is not privileged to sport a brilliant turnout of her own.

Tanagers are found only in well-wooded places. They are not the neighborly suburban burghers that robins are. They are not hermits, though, and will make their nests in parks and on large estates where there is plenty of timber. They are especially fond of oaks.

The range of the scarlet tanager is wide enough so that most of us can have a chance to see the bird if we seek him with patience and a discreet quietness. It covers all of eastern North America, and the winter migration grounds extend as far as northern South America.

*Science News-Letter, June 9, 1928*

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Of the 5,000 paintings on exhibition in the Louvre in Paris, about 100 have been pronounced frauds, following elaborate X-rays and spectograph studies.