When the Roman roads were the great highways of traffic, 40 to 50 miles was thought a good day's travel on wheels or horseback.

Some naturalists believe that wildfowl fly in V-formation because this enables each following bird to avoid the "wake" of disturbed air from the bird ahead.

vet. Rayon flowers form the graceful bandeau for her hair.

With her acetate crepe dress, the young lady wears hose of rayon spun under tension, thus imparting greater strength to the fiber.

"Maid of Science" carries a rare historic object—a silk purse made from sows' ears. A great chemist, Arthur D. Little, in 1921 actually gathered up the ears of sows, made gelatine of them, and by a process similar to that of producing rayon, the threads were spun and dyed. This green and rust colored silk was knitted into a form of purse such as medieval ladies once carried.

The little purse is more than a stunt, it is a symbol. By making that purse, modern science defied the age-old impossibilities: "You can't make a silk purse from a sow's ear."

There are no sows' ear purses on the market; there are other sources of silk much better for our use. But the moral remains: If a problem in science is sufficiently interesting, the worker in pure science will solve it.

Speaking of purses, would you like to know how much it costs to dress such beauty in such beautiful products of science? And such a costume is neither cheap nor extravagant. Girdle, slip, gown, wrap, sandals, bracelet, bandeau, cigarette case, hose—the costume complete sells for $137.45.

We must mention the Lastex which forms the foundation for the lady's costume. Lastex is a chemical triumph of the economic depression era.

Old-fashioned elastic could not be used in textile processes. What was needed was an invention—a way to vulcanize latex in a small uniform thread. This was achieved, and now, by coating the small rubber threads with fibers, spinning and knitting around them, you get elastic threads of which even lace may be made.

The field of plastics offers the young lady her bracelet of Catalin and her Catalin cigarette case. Only a chemist could love the early experimental objects of plastic stuff in their dark uninteresting colors. But synthetic resins have blossomed out into rainbow hues, palest pastels, and transparent effects.

Epilogue

So ends this Research Parade. In another sense, the Parade of Research will continue so long as man is inquisitive and has desires. If civilization is to continue, the Research Parade must go on and on. We salute the future. We greet the next hundred years.

Science News Letter, December 5, 1936

PHYSIOLOGY

Blood-Clotting Platelets Produced in the Lungs

BLOOD platelets, minute flattened disks important because they help to prevent death by hemorrhage, are produced in the lungs, it appears from research reported by Dr. William H. Howell, professor emeritus of physiology in the Johns Hopkins University, at the meeting of the American Philosophical Society.

First evidence that these vital elements of the blood are formed in the lungs was reported a year ago by Dr. Howell (See SNL, Dec. 7, 1935). His report now confirms this evidence, which helps to clear up a 50-year-old puzzle.

Scientists have held many theories as to the origin, function and fate of these platelets, which were discovered half a century ago. The marrow of the bones where the red blood cells and many of the white blood cells are formed was generally considered their birthplace, until Dr. Howell's research showed that they are formed in the lungs as a sort of solid secretion produced by cells called megacaryocytes.

The megacaryocytes increase in number and are stimulated to greater growth and activity by defibrination, Dr. Howell reported. This process consists in removing the fibrin from the blood and causes destruction of the platelets. But while the number of platelets circulating in the blood is reduced when some of the fibrin is removed, production of new platelets is stimulated by the process.

Injecting peptone into the blood also causes an immediate large reduction in the number of platelets, Dr. Howell reported, but the number returns practically to normal within two or three hours.

"What happens," he explained, "is that the peptone causes clumping of the platelets in the circulation and these clumps are strained off in the capillaries (smallest-sized veins and arteries), especially the capillaries of the lungs, where they disintegrate or become phagocytized.

"The rapid return to normal is not due to the restoration of the clumped platelets to the circulation but to an accelerated formation of new ones."

Examination of sections of the lungs under the microscope bears out this interpretation. A characteristic feature, after a certain time, is the number of small, apparently newly developed giant cells found in the lungs.

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