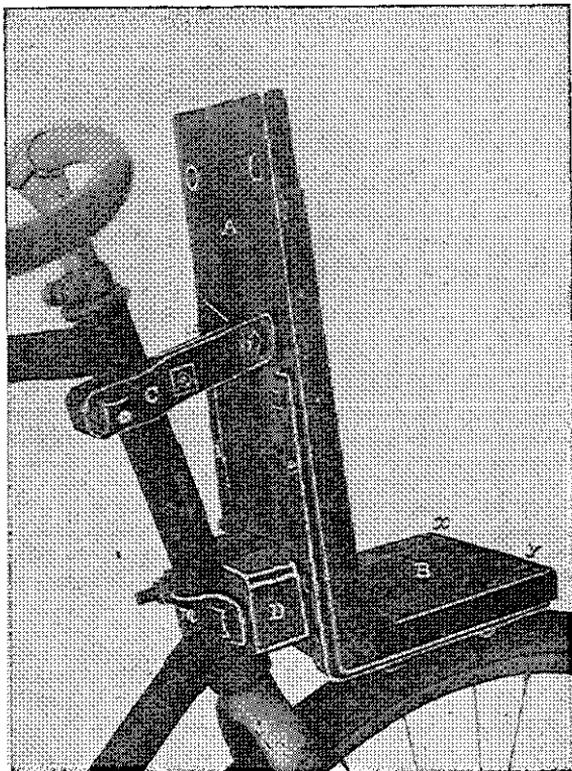


## CARRYING A CAMERA ON A BICYCLE.

BY ROLLIN BLACKMAN.

Being in need of a means to carry a cumbersome photographic outfit on a bicycle, I made for the purpose a successful device which clamps on the head of the frame. I have no trouble carrying my 5x7 view outfit (which weighs nineteen pounds) at a rapid rate. The outfit being stationary on the head of the bicycle does not throw the rider out of balance as it would if it were fastened on the handle-bars.



The accompanying illustration will give the reader an idea of its construction without much description. However, a few facts and figures may be of service. I bought a compact dress suit case,  $17\frac{1}{2}$  inches long,  $11\frac{1}{2}$  inches in depth, and  $5\frac{1}{2}$  inches wide, in which to carry my view camera, plate-holders, focusing cloth, tripod-head, and sample pictures.

The upright board A in the illustration is 6 inches wide,  $\frac{7}{8}$  inch thick, and 14 inches long. The base B is 6 inches wide,  $6\frac{1}{4}$  inches long, and  $\frac{7}{8}$  inch thick. This board frame is reinforced and held together by the irons e and i, which are in the form of an "L" and fastened on with  $\frac{1}{4}$  inch bolts. They are  $\frac{3}{4}$  inch wide and  $\frac{3}{16}$  inch thick. The iron clamp C is made of iron  $1\frac{1}{4}$  inches wide and  $\frac{3}{16}$  inch thick. D is a wooden block  $1\frac{3}{4} \times 1\frac{3}{4} \times 4\frac{1}{2}$  inches hollowed out to fit the bicycle head. Two  $\frac{3}{8}$  inch bolts pass through it and hold the iron clamp M. The upright board A is

covered on the front side with corduroy to prevent wearing the carrying-case. Of course the size of the device may be altered to fit other outfits.

The carrying-case is strapped on by passing a long whang-leather strap  $\frac{3}{8}$  inch wide through the  $\frac{3}{8}$  inch holes  $x$  and  $y$  and then looping each strap once around the handle of the carrying case and inserting them through the holes at the top of the carrier and buckling. The sliding and folding tripod may be carried on top of the carrying case.—*Photo-Era Magazine*.

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### WEARING AWAY OF MOTHER EARTH.

Investigations by the United States Geological Survey of the erosion of numerous drainage basins of the United States show that the surface of the country is being removed at the average rate of about an inch in 760 years. Though this amount seems trivial when spread over the surface of the country, it becomes stupendous when considered as a total, or even in separate drainage basins. Mississippi River, for instance, carries annually to the sea 136,400,000 tons of dissolved matter and 340,500,000 tons of suspended matter, and of this total Ohio River carries 83,350,000 tons and Missouri River contributes more than twice as much. Colorado River, which has built up for itself a vast delta, brings down more suspended matter than any other river in the United States, delivering annually 387 tons for each square mile of its drainage basin, or a total of 100,740,000 tons.

The rivers of the United States carry to tidewater every year 270,000,000 tons of dissolved matter and 513,000,000 of suspended matter. This total of 783,000,000 tons represents more than 350,000,000 cubic yards of rock, or 610,000,000 cubic yards of surface soil. If this erosive action had been concentrated on the Isthmus of Panama at the time of American occupation it would have excavated the prism for an eighty-five foot level canal in about seventy-three days.