

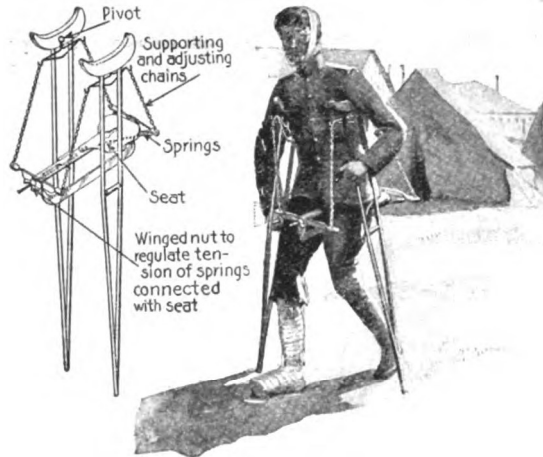
Now the Crippled Soldier Can Do His Walking Sitting Down

The Various Ranges of Electric Searchlights on the Sea

WOUNDED soldiers and ordinary invalids who are compelled to use crutches for long periods often suffer from "crutch paralysis," caused by the great strain and the pressure of the arm rests of the crutches upon the nerves of the arm pits. Two ways to avoid this have been devised recently, in both of which the invalid is enabled to sit down while he walks.

One of these boons to the crippled—shown near the top of this page—provides a swinging seat suspended between the crutches by chains or straps attached to the lower side of the arm-supports. It is the invention of Walter Clifford, of London. The seat may be shaped like a bicycle saddle, or may consist merely of pads resting upon springs. The height of the seat can be adjusted to suit the user and the entire seating device can be removed altogether when not needed by taking it off the hooks. By means of straps around the chest, or over the shoulders, the crutches may be secured to the body, leaving the invalid free to use his arms and hands.

The other ingenious device goes even further in that it not only relieves the arms from crutch strain, but enables the user to exercise his legs as much or as little as he chooses. It is especially designed for those who do not have perfect control of their legs. The weight of the body rests either on a padded spring seat or on the shoulder supports, and both are adjustable.



He sits in a swing as he hikes on his crutches and so dodges arm-strain

RANGES of electrical searchlights vary, from between one thousand to two thousand yards in foggy weather to ten thousand yards or more when the air is very clear. The average range is approximately six thousand yards, but there are cases on record where ships have been spotted at a distance of nine miles. These figures are based on a sixty-inch mirror and a twenty-thousand-watt arc and are accurate.

What Sounds Can Aviators Hear at Different Altitudes?

THE famous French astronomer, Camille Flammarion, gives in one of his reports the heights at which certain sounds from the earth are heard from balloons.

At an altitude of 3,000 feet the croaking of frogs was distinctly heard. At the height of 3,225 feet the rolling of a cart was made out.

At 4,550 feet the roll of a drum and the music of an orchestra were distinguished; at 5,000 feet the sound of a church bell, the crowing of a cock and sometimes the shouts of men and women. Going 900 feet higher still he heard the report of a musket and the barking and yelping of dogs.

The rumble of a railway train rose to a height of 8,200 feet and the whistle of a locomotive engine to nearly 10,000 feet.



He can give his legs as much or as little work as he likes