JANUARY 2021

DESIGNING IN CRISIS

Traction Leg Splint | Charles Eames and Ray Kaiser Eames

Designer: Charles Eames and Ray Kaiser Eames. *Traction Leg Splint*. design 1941, manufactured c. 1942. Molded plywood. 41 1/2 x 8 1/8 x 4 1/2 in. (105.4 x 20.6 x 11.4 cm.). The Baltimore Museum of Art: Gift of Barry Friedman and Patricia Pastor, New York, BMA 1984.382

If you were to take a guess as to the function of this object, what might it be? At first glance, perhaps it resembles a kind of sled. A long, narrow wooden structure—enclosed at one end with the opposite end open and curving downward. At the enclosed end (on the right of the image), a wide strip of wood bends downward and back up, which acts to lift the object from the ground and counterbalance the lip at the object's open end. At two other points, closer to the open end of the structure, the wood bows slightly downward. There are also four small rectangular cutout areas and, although you cannot see them from this image, additional larger slits in the interior. What is this mysterious item? It is a leg splint, designed by the renowned team of Charles and Ray Eames.

In times of national crisis, the U.S. government frequently calls upon individuals with expertise in a wide range of fields—from engineering to linguistics—to develop new or improve existing products or processes necessary for resolving the crisis. In the current COVID-19 pandemic, scientists, doctors, and nurses have probably been the most visible professionals for the public as they develop a vaccine or care for those infected. But these individuals certainly do not represent all of the workers who have contributed to combatting the virus, such as EMTs, manufacturers of medical equipment, ambulance mechanics, and many, many more.

The *Traction Leg Splint* pictured in this resource is the result of the designers Charles and Ray Eames using their experience making furniture with plywood to craft a new kind of leg splint for injured soldiers during World War II. The metal leg splints previously in use were actually causing additional pain and injury to soldiers during transportation. Using a custom-designed plywood molding machine they called "Kazam!", the Eameses manufactured thousands of lightweight splints to support the wounded. This splint has a soft wood veneer surface, curvature that reduces friction from vibration, and slits for fabric ties to easily secure the soldier's leg in place. While perhaps best known for their popular living room recliners, the Eameses created numerous designs for the U.S. military for medical and aeronautical needs, lending their creativity and craftsmanship to a good cause in a time of great need.

CLASSROOM ACTIVITY

Divide students into groups of four and instruct them to look carefully at the image of the leg splint. Ask them to brainstorm what they think the object might be and what they are seeing that suggests their answers. When all students have shared, inform them about the leg splint and its context. Ask them to share a few professions that are contributing to the effort to fight COVID-19. In their groups of four, ask students to come up with a problem that affects large groups, or the entire population, of Americans (this can be extended globally) and come up with a proposed solution. Students may use large sheets of paper and illustrate their answers as well. Groups may then share with the entire class.

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Traction Leg Splint, 1941

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