To all whom it may concern:

Be it known that I, Michael Hryz, a citizen of Poland, residing at Braznell, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Looms for Hand Weaving, of which the following is a specification.

This invention relates to hand looms for use in weaving rugs or the like, and it has for a general object to provide an improved hand loom of simple and inexpensive construction.

A further specific object of the invention relates to the feature of facilitating the threading of the warp threads through the operating frame.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Fig. 1 of the drawings is a perspective view of my improved hand loom.

Fig. 2 is an end view thereof.

Fig. 3 is a fragmentary face view of the hand frame.

Fig. 4 is a transverse section on the line 4—4 of Fig. 3.

In constructing my improved hand loom I provide a pair of side bars or rails 10 which may be mounted on suitable supports, for instance the opposite walls of a room, these bars being here indicated as engaging at their ends in brackets 11 secured to the walls or other supports. Each of these bars has a row of hooks 12 secured thereto and projecting laterally therefrom, the warp threads of the rug or other article being wound back and forth along these hooks.

Arranged between these side bars 10 is a horizontally elongated rectangular frame which comprises top and bottom rails 25 and 26 united by end rails or posts which are each made up of upper and lower sections 28 and 29 fixed respectively to the top and bottom rails 25 and 26. The upper section 28 is formed at its lower end with a socket 30 in which engages a diminished stud 31 on the upper end of the lower section 29. A set screw 32 is threaded through the wall of the upper section and bears against the stud 31 to hold the two sections together. This frame carries a row of closely spaced vertical bars which, collectively considered, extend from end to end of the frame and are divided into upper and lower sections 34 and 35 fixed respectively to the top and bottom rails. The lower section 35 is formed with a socket 35' in which engages a stud 36 on the lower end of the upper section 34. The side walls of this socket 35' are slotted from top to bottom as at 37, while the stud 36 is spaced at its lower end a slight distance from the bottom of the socket 35', a small aperture leading completely through the bar being thus provided to receive the thread.

These apertures are provided in the bars to receive the alternate sections of the warp threads which pass therethrough as clearly shown in Fig. 1. As will be understood in setting up the loom for weaving, the end of the yarn which is to form the warp threads of the rug or other article is passed from a hook on one of the side members 10, through the aperture in one of the bars, around a juxtaposed hook on the other side member 10, back between the bar through which it has just been passed and the adjacent bar, around the next hook on the first mentioned side member 10, back through the aperture in the next bar, to the next hook on the other side member 10, and so on until a warp element has been formed of the width corresponding to that to be given the article to be woven, the alternating warp threads passing as will be apparent respectively through and between the bars. In Fig. 1 the threads which pass through the apertures 16 are indicated at 20, and those that pass between the bars 15 are indicated at 20'. In weaving the weft threads between the warp threads the frame 14, which is provided at opposite ends with handles 24, is alternately lowered and raised between the positions shown in full and dotted lines in Fig. 2, which reciprocation as clearly indicated, lowers and raises those warp threads which are connected to the frame by being passed through the apertures 16 in the bars 15, permitting the weft threads to be passed between the row of vertically displaced threads and the row of alternating threads which pass between the bars 15 and in consequence are not affected by vertical movement of the frame.

When the warp thread is to be placed on the loom the two parts of the frame are separated. The warp thread can then be readily
passed back and forth, each alternate reach being inserted into the slotted sockets 35. When this operation is completed the upper part of the frame is placed in position, the frame being then ready for use.

It will be understood also that various other changes and modifications might be made in the details of construction without departing from the spirit and scope of the invention as defined in the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent of the United States is as follows:

1. In a hand loom, a warp thread manipulating element comprising a frame divided into upper and lower separable sections, and including vertical bars similarly divided, the bars of one of said sections being slotted at their inner ends to receive the warp threads, the bars of the other section closing the said slots when in place.

2. In a hand loom, a warp thread manipulating element comprising a frame divided into upper and lower separable sections and including a plurality of vertical bars, studs formed on the inner ends of the bars of one section, the bars of the other section having sockets therein to receive said studs, the opposite walls of said sockets being slotted, for the purpose specified.

In testimony whereof I have affixed my signature.

MICHAEL HRYZ.