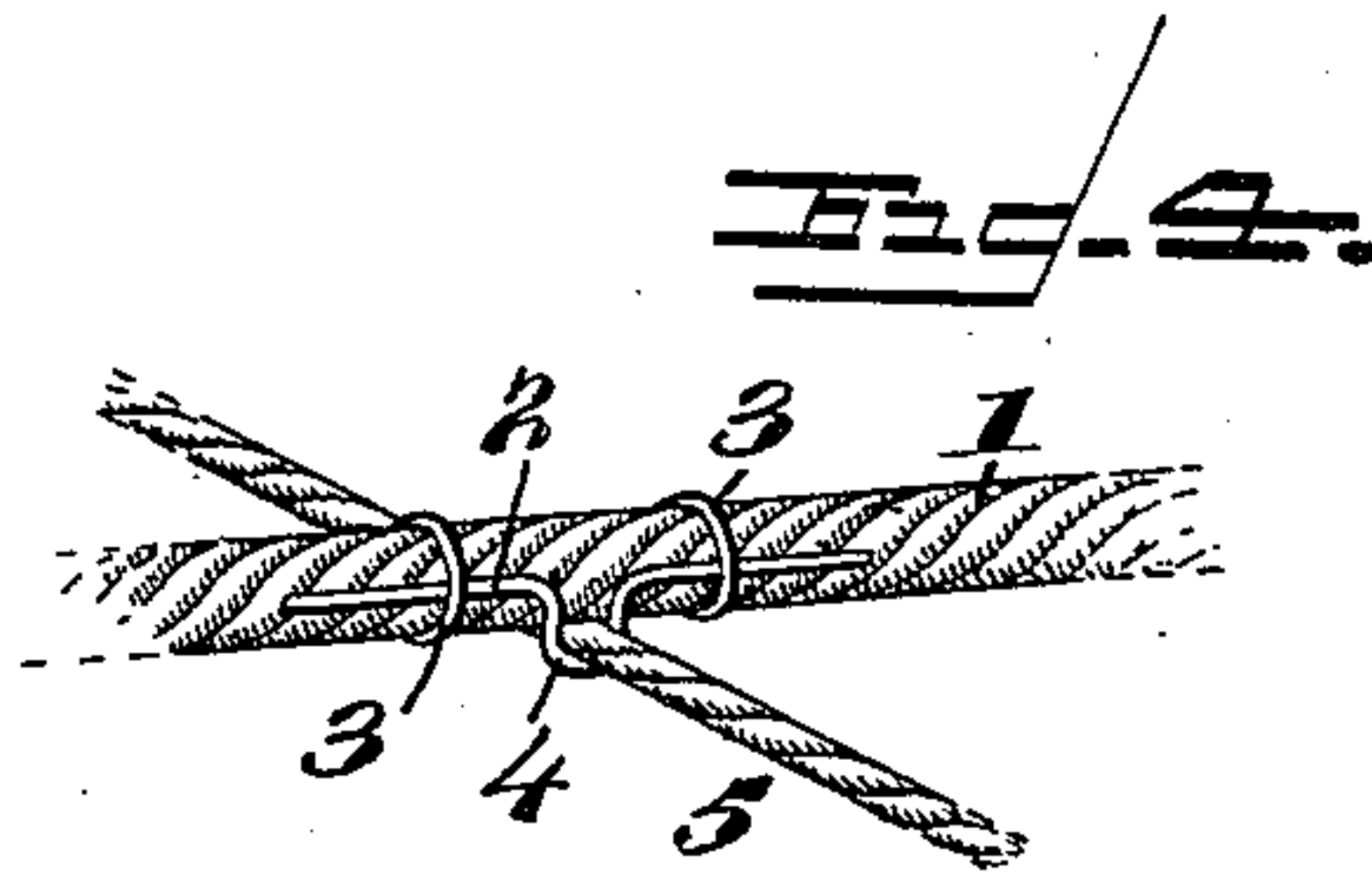
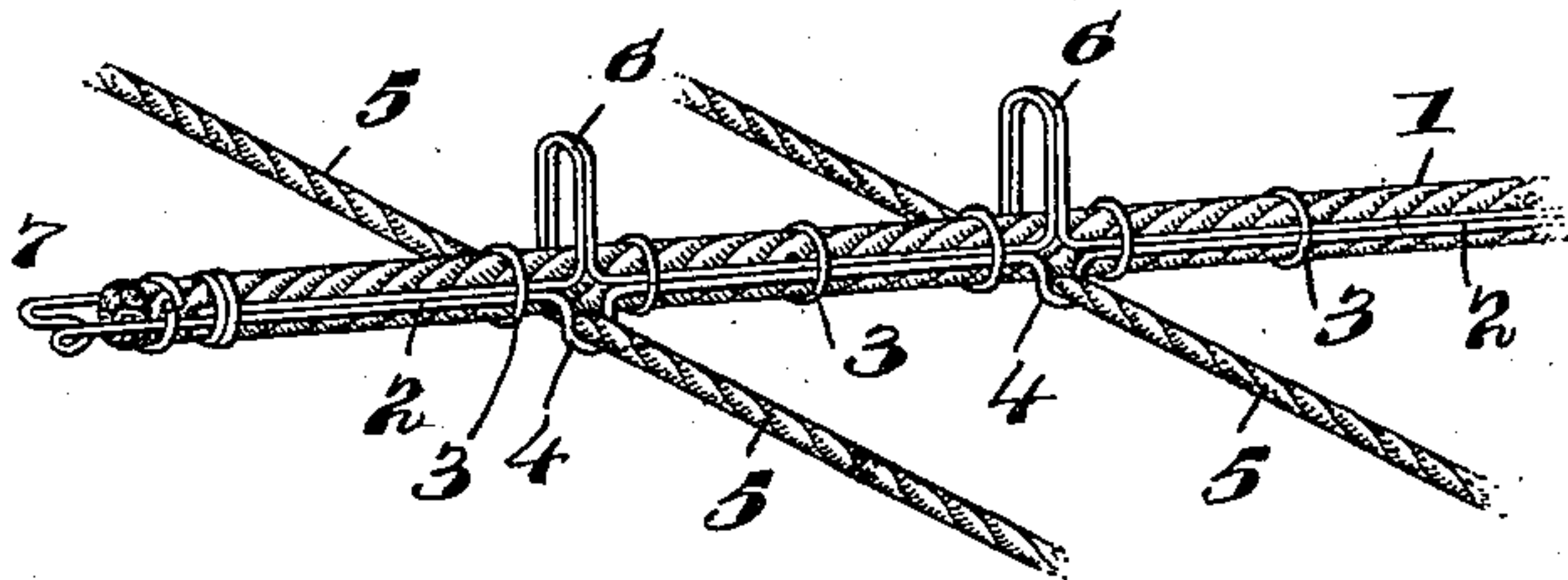
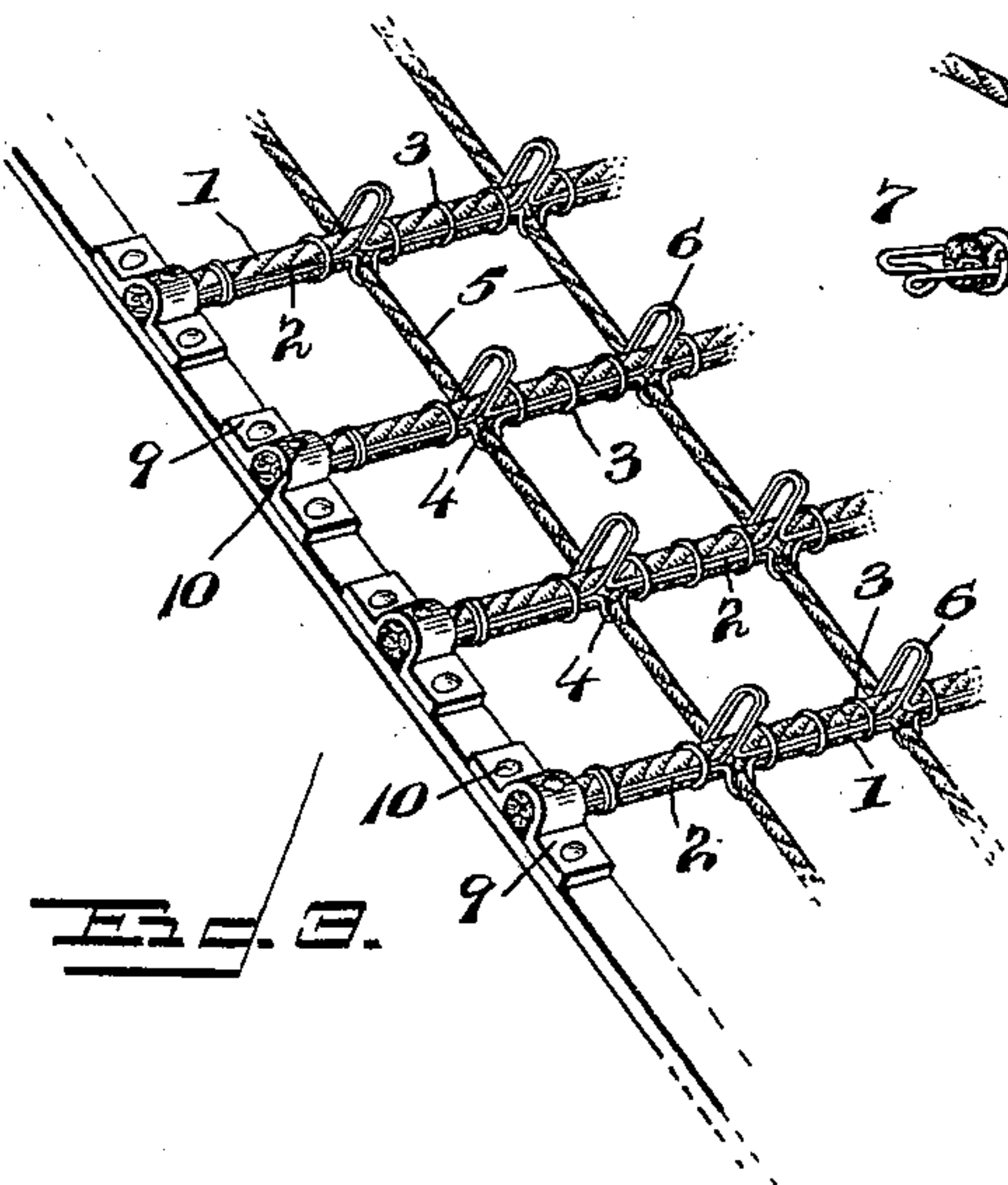
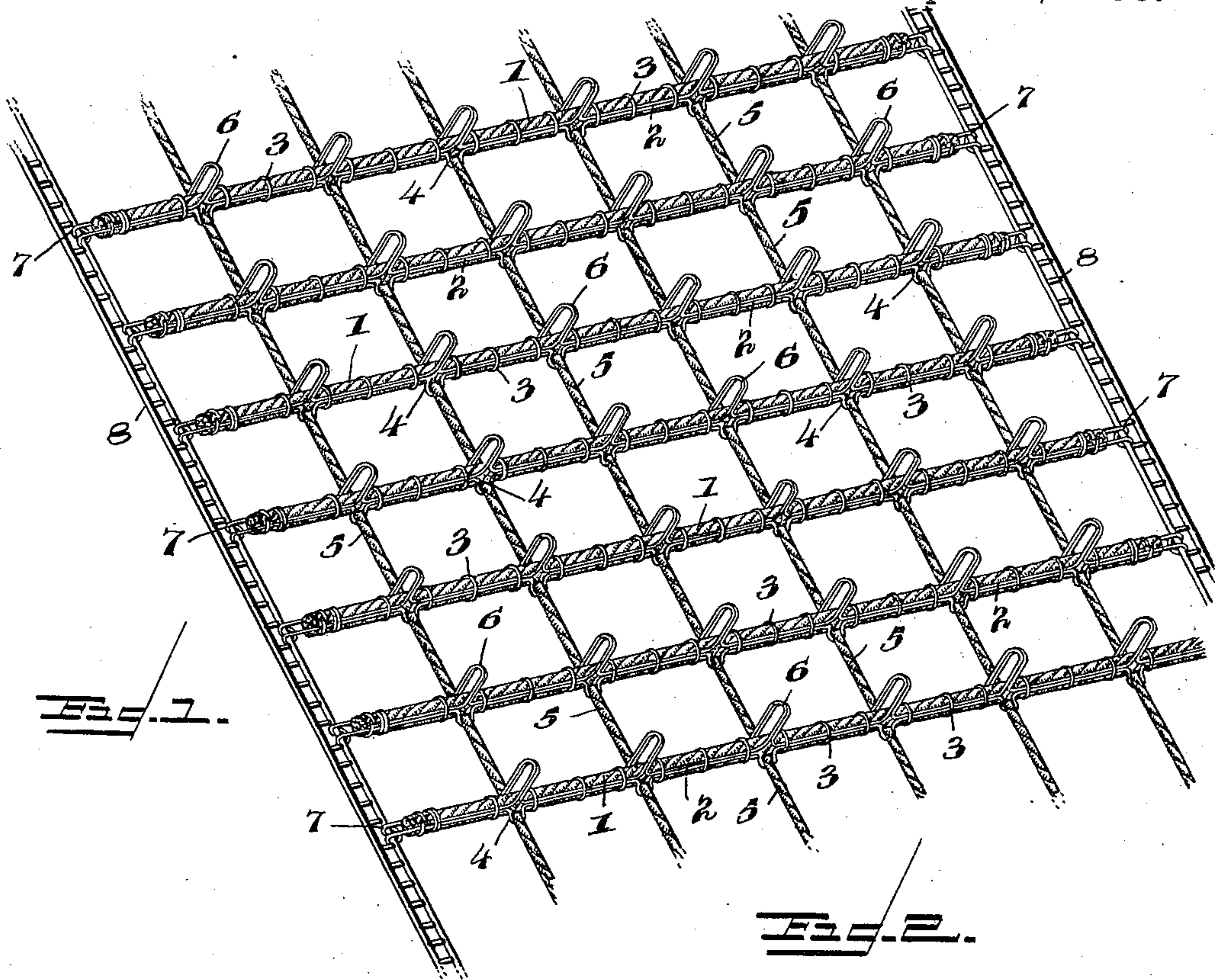


(No Model.)

S. FERGUSON.  
CARRIER APRON.

No. 538,443.

Patented Apr. 30, 1895.



Inventor

Samuel Ferguson

By *his* Attorneys.

*C. A. Snow & Co.*

Witnesses  
*E. H. Stewart*  
*D. E. Taylor*



# UNITED STATES PATENT OFFICE.

SAMUEL FERGUSON, OF CEDAR RAPIDS, IOWA.

## CARRIER-APRON.

SPECIFICATION forming part of Letters Patent No. 538,443, dated April 30, 1895.

Application filed June 5, 1894. Serial No. 513,568. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL FERGUSON, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Carrier-Apron, of which the following is a specification.

My invention relates to carrier aprons, and particularly endless aprons designed for use in connection with hay-loaders, harvesters, reaping and thrashing machines, grain-separators, and other implements of a similar nature employing traveling aprons or carriers, and it has for its object to provide an apron having the requisite strength without the weight of the ordinary slatted devices; to provide an apron having transverse flexibility whereby it is adapted to yield under extraordinary strains without breaking or becoming otherwise injured; to provide an inexpensive apron which may be repaired without the aid of a skilled workman; and to provide means whereby the body portion of the apron may be readily and quickly disconnected from the carrier chains or belts, and stored when not in use to avoid injury by rain, snow, and the like.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a portion of an apron embodying my invention. Fig. 2 is a detail view of a portion of the same. Fig. 3 is a detail view showing the manner of attaching the ends of the transverse members to a belt. Fig. 4 is a detail view showing a modification.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The construction of the carrier embodies transverse members 1, which take the place of the ordinary slats, and are made of hemp or cotton rope, provided with stiffening wires 2, arranged in contact and parallel with the sides of the members. These stiffening wires are preferably arranged in duplicate, as shown in the drawings, but the combined strength of the rope and the wires does not deprive the transverse members of a certain flexibility

which is desirable and is one of the special advantages of the construction. The stiffening wires are held in place upon the rope by means of the encircling rings 3, spaced at suitable intervals, and the wires are provided at intervals, corresponding in the different transverse members, with eyes 4, through which extend the continuous flexible longitudinal connecting members 5, any desired number of which may be employed. The stiffening wires are further provided, at intervals, with upstanding terminally rounded loops 6, which form spurs to increase the holding capacity of the apron.

The transverse members of the apron are provided at their extremities with hooks 7, preferably formed as continuations of the stiffening wires, which engage suitable links of the carrier-chains, portions of which are indicated in the drawings at 8, whereby when not in use the transverse and longitudinal members may be detached from the carrier-chains and stored.

When carrier-belts are employed in place of chains, as shown in Fig. 3, the terminals of the transverse members may be attached to the same by means of small plates 9, held in place by rivets 10, or similar means.

From the above description it will be seen that the apron is light in weight and at the same time the transverse members may be of substantially the same size as the ordinary wooden slats, thereby not detracting in any way from the operativeness of the structure; and furthermore, the flexibility of the transverse members prevents breakage when the apron is subjected to severe strains while providing the necessary rigidity for effective operation. Furthermore, when the additional stiffness provided by the wires is not needed very thin wire may be employed, and if preferred the wire may be used solely to attach the longitudinal members 5, as shown in Fig. 4, the construction being the same, however, in other respects.

It will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim—



1. The combination with parallel carrier chains or belts, of a carrier apron having flexible transverse members constructed of rope, stiffening wires arranged parallel and in contact with the transverse members, means for securing the stiffening wires to the transverse members, and spaced longitudinal members intersecting and secured to the transverse members, substantially as specified.

2. A carrier apron having flexible transverse members, stiffening wires arranged parallel with and secured to the transverse members, said stiffening wires being looped or bent upward at intervals to form upstanding spurs, being bent downward at intervals to form eyes, and being extended beyond the extremities of the transverse members to form hooks for engagement with carrier chains, and continuous flexible longitudinal members intersecting the transverse members and extending through said eyes whereby they are secured to the transverse members, substantially as specified.

3. The combination with parallel carrier chains, of a carrier apron having flexible transverse members, stiffening wires arranged parallel with and secured to the transverse members, said wires being extended beyond the ends of the members to form hooks which are engaged with the links of the carrier-

chains, and longitudinal members connecting the transverse members, substantially as specified.

4. A carrier-apron having flexible transverse members, stiffening wires arranged parallel with and secured to said members, said wires being bent upward at intervals to form upstanding spurs and being bent downward at intervals to form eyes, and longitudinal members intersecting said transverse members and extending through the said eyes, whereby they are secured in the proper relative positions, substantially as specified.

5. A carrier-apron having flexible transverse members, stiffening wires arranged parallel with and secured to said members, said wires being bent at intervals to form eyes, and longitudinal members intersecting said transverse members and extending through the said eyes whereby they are secured in the proper relative positions, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL FERGUSON.

Witnesses:

WM. DAVIS,  
JOSEPH MOORE.