

No. 631,193.

Patented Aug. 15, 1899.

L. W. WILLIAMS.

PULLEY FRAME FOR CARRYING SIGNAL WIRES, &c.

(Application filed May 22, 1899.)

(No Model.)

FIG. 1.

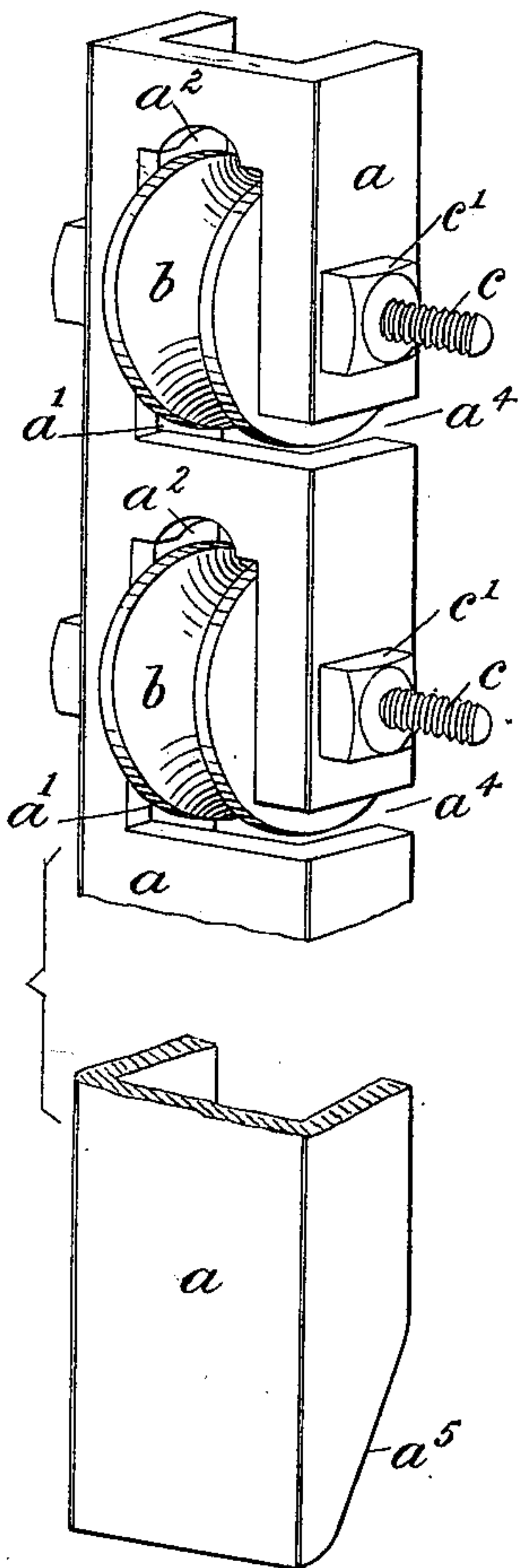


FIG. 2.

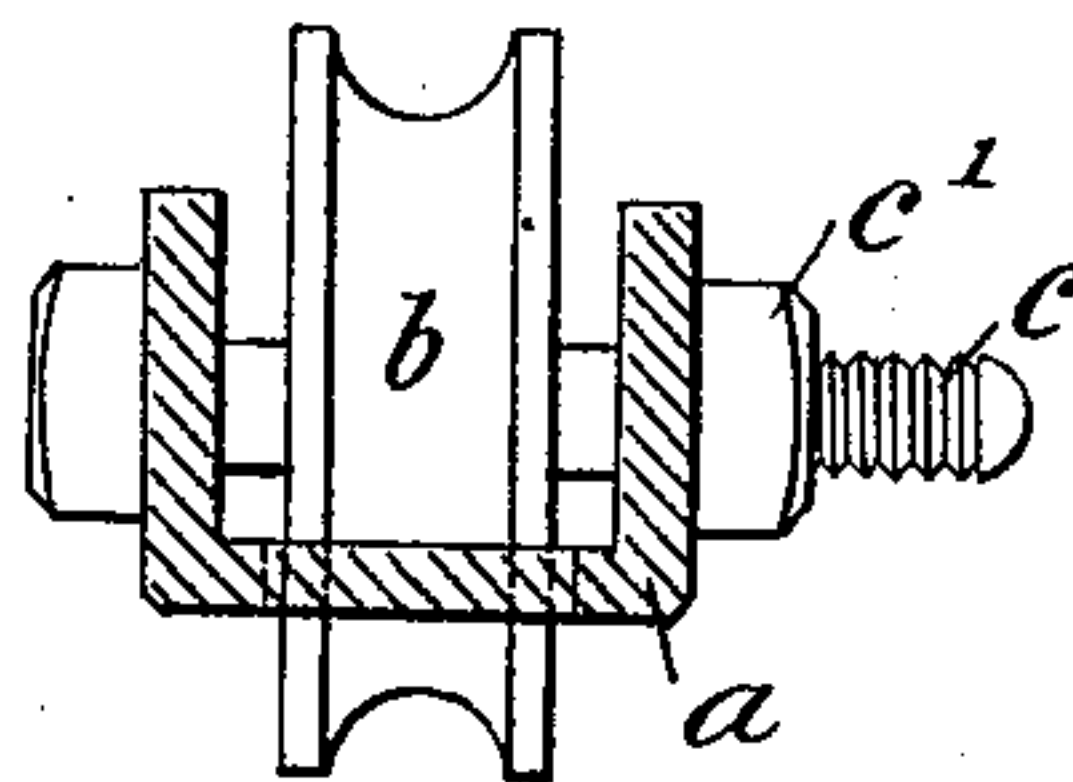
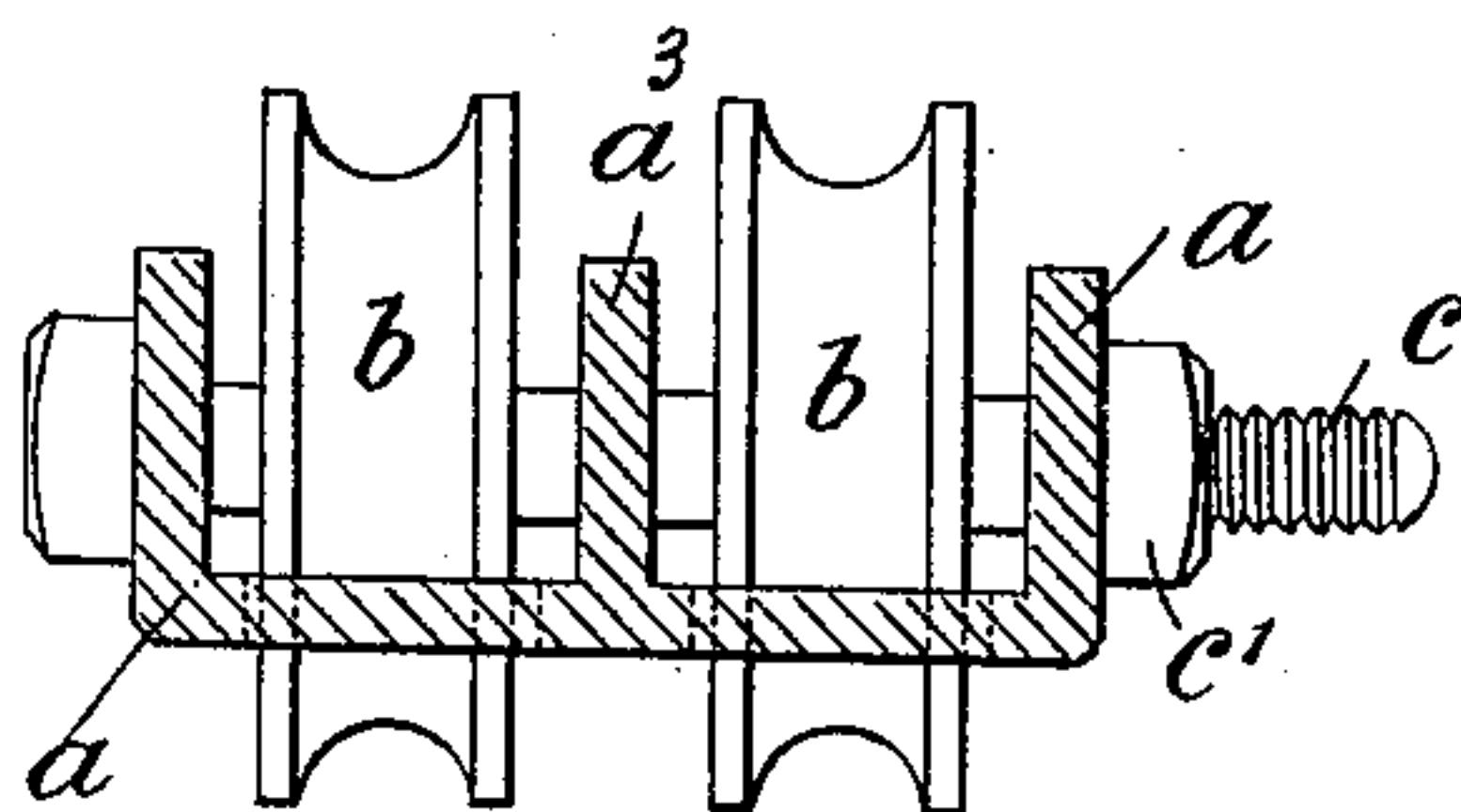


FIG. 3.



WITNESSES

Richard A. Wright.  
S. C. Connor

INVENTOR

Llewellyn Wynn Williams  
by his Attorney

Horizon and Horizon

# UNITED STATES PATENT OFFICE.

LLEWELLYN W. WILLIAMS, OF CATHCART, SCOTLAND.

## PULLEY-FRAME FOR CARRYING SIGNAL-WIRES, &c.

SPECIFICATION forming part of Letters Patent No. 631,193, dated August 15, 1899.

Application filed May 22, 1899. Serial No. 717,841. (No model.)

*To all whom it may concern:*

Be it known that I, LLEWELLYN WYNN WILLIAMS, a subject of the Queen of Great Britain and Ireland, and a resident of Cathcart, county of Renfrew, Scotland, have invented certain new and useful Improvements in Pulley-Frames for Carrying Signal-Wires and the Like, of which the following is a specification.

10 This invention has reference to an improved method of forming pulley-frames for carrying railway signal-wires and the like.

The improvements consist in using rolled iron and steel bars of an appropriate section and cutting these into short lengths and machining them into suitable formation to receive and house the pulleys, and in order to enable others skilled in the art to which my invention relates to understand how the same may be carried into practice I have hereunto appended a sheet of explanatory drawings, in which—

25 Figure 1 represents a perspective elevation illustrating my improvements as applied for carrying single pulleys over each other. Fig. 2 is a plan view corresponding to Fig. 1, and Fig. 3 is a similar view showing how the pulleys may be housed by these frames in parallel multiple line.

30 Referring to the drawings, the housing-frames are formed from wrought iron and steel bars  $a$ , rolled into channel, angle, and like sections and cut into appropriate lengths. These bars  $a$  have parts cut away at  $a'$  to receive pulleys  $b$  and machined at  $a^2$  for the signal-operating wires to pass through, and a saw-draft is made at  $a^4$  for bringing in the wires. The pulleys  $b$  are carried on screw-

threaded bolts  $c$ , which pass through holes formed in the cheeks of the housings  $a$  and are held by screwed nuts  $c'$ .

In the arrangement shown in Fig. 3 the housing-frame  $a$  is formed with a web  $a^3$  between the pulleys  $b$ . These pulley-frames  $a$  can be used to form the pulley-stakes, as shown at the pointed end  $a^5$  in Fig. 1, and thus dispense with the separate timber stakes hitherto used.

What I claim is—

1. A pulley-frame for carrying signal-wires and the like, and comprising a wrought-metal bar of channel or like section, cut away as at  $a'$  to receive the pulley and having a side cut as at  $a^4$  for bringing in the wire, substantially as described.

2. A pulley-frame for carrying signal-wires and the like, and comprising a wrought-metal bar of channel or like section, cut away as at  $a'$  for the pulley and at  $a^2$  for the wire and having a side cut as at  $a^4$  for bringing in the wire.

3. A pulley-frame for carrying signal-wires, and comprising a wrought-metal bar of channel or like section and adapted to be driven into the ground and provided at its upper end with a cut as at  $a'$  to receive the pulley and a side cut as at  $a^4$  for bringing in the wire, and means to support the pulley, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LLEWELLYN W. WILLIAMS.

Witnesses:

R. C. THOMSON,  
WM. RUTHERFORD.