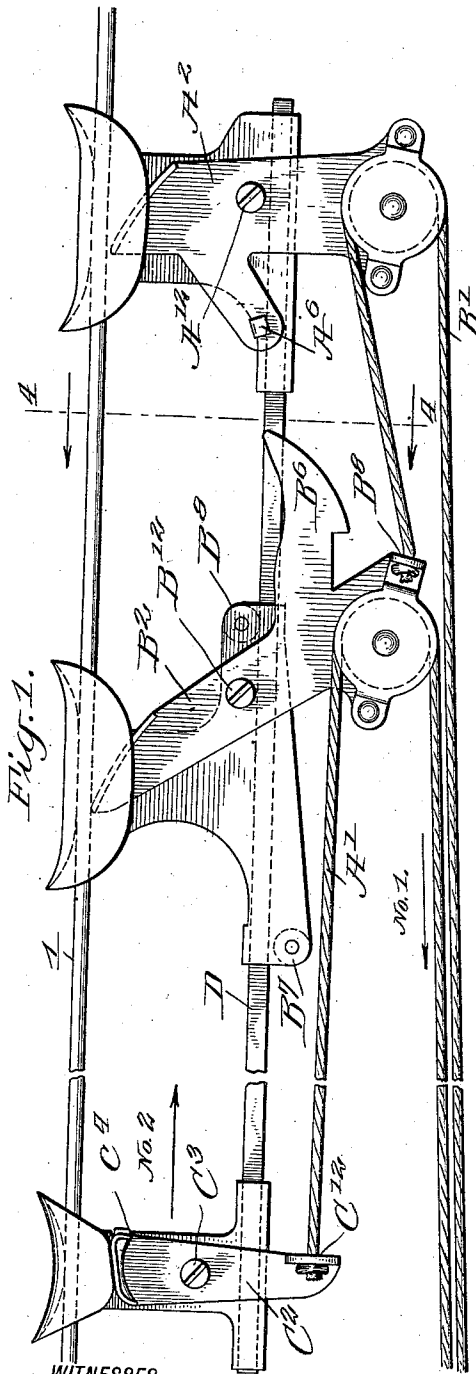


L. D. SHAFFER.
LINE CARRIER.

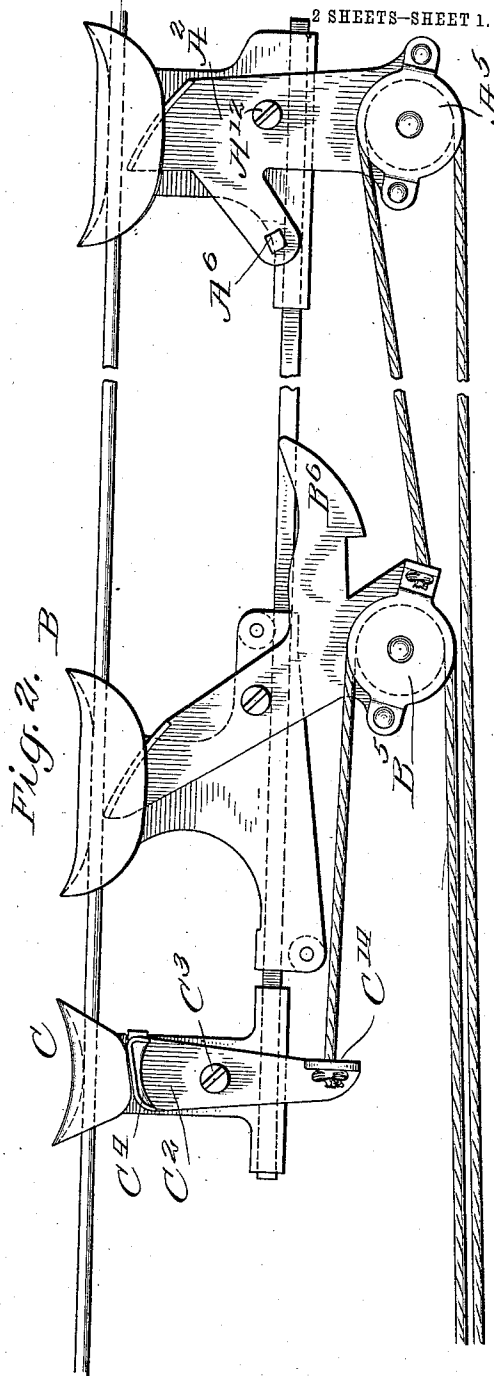
APPLICATION FILED AUG. 21, 1911.

1,041,683.

Patented Oct. 15, 1912.



WITNESSES
E. M. Callaghan
Perry B. Turpin.



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 2 SHEETS—SHEET 2.

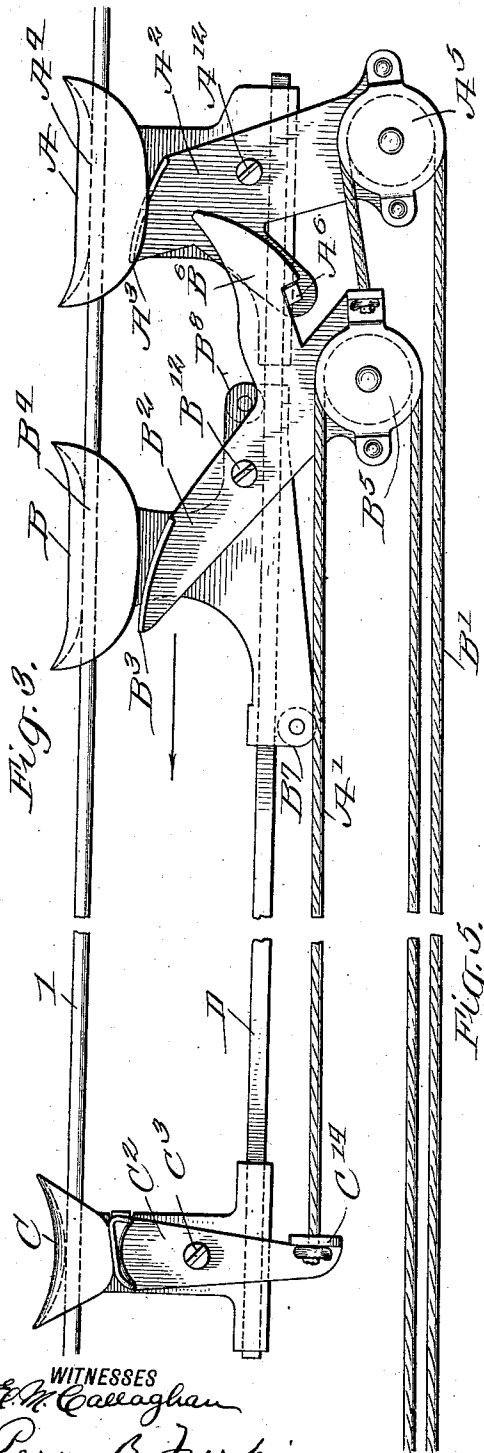


Fig. 4.

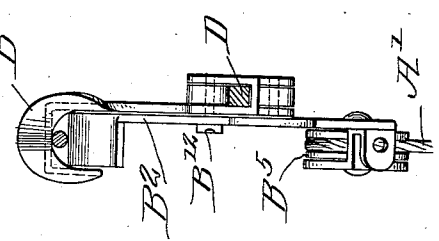
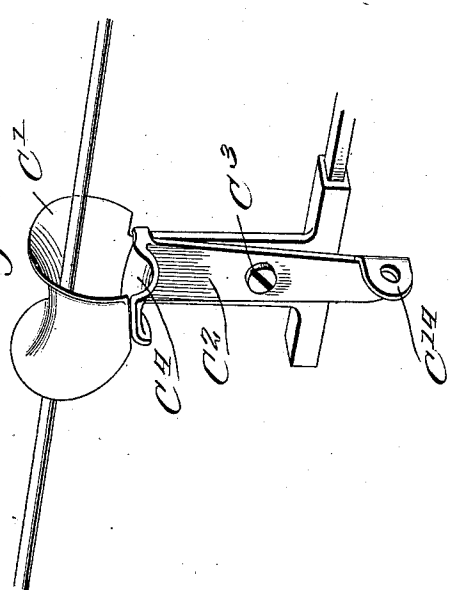


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEWIS D. SHAFFER, OF PAINT BOROUGH, PENNSYLVANIA.

LINE-CARRIER.

1,041,683.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed August 21, 1911. Serial No. 645,084.

To all whom it may concern:

Be it known that I, LEWIS D. SHAFFER, a citizen of the United States, and a resident of Paint borough, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Line-Carriers, of which the following is a specification.

This invention is an improvement in line carriers, such for instance as that shown in my prior Patent No. 850,798 of April 16, 1907 and like the construction shown in said prior patent, is especially intended for use in stringing wires after the first wire has been strung, as well as for carrying the wires, lines and the like across an intervening space having a wire for supporting the device; the present invention seeking to provide certain improvements in the construction of the different parts; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a side elevation of my apparatus as in use with the parts in the position they assume in advancing the front traveler. Fig. 2 is a similar view showing the parts in the position they assume when the front traveler has been advanced. Fig. 3 shows the parts in position to permit the carrier to be retracted or moved back toward its starting point. Fig. 4 is a detail cross section on about line 4-4 of Fig. 1. Fig. 5 is a perspective view of the rear guide for the front traveler.

As shown, the carrier is mounted upon a cable 1, which may be a suitable wire or other cable and includes a front traveler A, a rear traveler B and a guide C, which is connected by a bar D with the front traveler, the front traveler A and the guide C being both secured rigidly to the bar D and the rear traveler B being mounted to slide along the bar D. A cord A' is provided for advancing the front traveler A and a cord B' for advancing the rear traveler B and the said travelers A and B are provided respectively with detent pawls A² and B² which in operation bind the cable 1 and grip the same between the points A³ and B³ of the respective pawls and the shoes A⁴ and B⁴ which move along the cable 1.

The detent pawls A² and B² are pivoted at A¹² and B¹² to their respective travelers and are provided below their pivots with pulleys A⁵ and B⁵ around which the cords B' and

A' respectively pass so that tension on the cords A' and B', operating upon their respective pawls will operate to tilt the said pawls to cause them to bind against the cable in such manner as to lock the respective travelers in position upon the cable so that they may operate as anchorages each in advancing the other traveler.

The pawl B² is provided at its front side with a projecting hook B⁶ which engages upon a stud A⁶ on the pawl A² as shown in Fig. 3 when it is desired to retract the carrier, in which case the rear traveler is advanced to engage with the front traveler and both cords A' and B' being held taut, both pawls A² and B² will be held clear of the cable so that by draft on both cords A' and B' as more fully described hereinafter, the entire carrier may be drawn back to the operator or to any desired point in his direction.

The rear traveler B is provided with rollers B⁷ and B⁸, one bearing below and the other above the bar D in such manner as to ease the movement of the said traveler along said bar.

The rear guide C to which the cord A' connects is preferably formed as best shown in Fig. 5, with an open hook C' forming the shoe to rest upon the cable 1 and a pivoted arm C² pivoted at C³ having at its upper end a head C⁴ which closes the bottom of the hook C' and extends below its pivot C³ to afford at C¹⁴ a point for connection of the cord A'.

The operation of the construction will be readily understood in connection with the accompanying drawing. When the parts are in the position shown in Fig. 1, it will be noticed that draft on the cord A' rocks the pawl B² to cause its edge B³ to bite against the cable and to prevent any rearward movement of the traveler B along the cable 1. A further draft on the cord A' in the direction of the arrow No. 1 in Fig. 1, will, acting upon the rear guide C at C⁴, pull the said guide in the direction of the arrow No. 2 in Fig. 1 and thus cause the bar D to slide forward through the rear traveler B and advance the front traveler A to the extent of the movement of the bar D. When the bar D has moved to its full extent through the rear traveler B, draft may be exerted upon the cord B', the initial draft in such instance rocking the pawl A² causing its edge A³ to bite the cable and anchor

the front traveler thereto, while a further draft on the cord B', will, as such cord connects at B³ with the traveler B, move the said traveler B forward toward the front traveler. It is desirable to stop this front movement of the rear traveler before it reaches the position shown in Fig. 3, unless it is desired to retract the carrier. In such case, the rear traveler may be pulled forward until its hook B⁶ engages at A⁶ with the pawl on the front traveler A. If, now, draft be exerted on both cords A' and B', both pawls A² and B² will be held by their engagement with each other, in the position shown in Fig. 3, clear of the cable 1, so that the entire carrier may be pulled back along the cable 1 toward the operator.

In operation, it will be noticed, that I provide for positively gripping the cable between the hangers and the pawls of the travelers and that in retracting the carrier, the pawls will be held clear of the cable so long as they are held in the engagement shown in Fig. 3. By releasing the tension on the cord B' and pulling quickly upon the cord A', the hook B⁶ will be disengaged from the stud A⁶ of the pawl A².

The arm C² of the guide C is so pivoted that the draft on the cord A' in the operation of the invention, holds the lever C² in position to close the rear guide.

I claim:

1. The line carrier substantially as herein described, comprising a front traveler having a rearwardly projecting bar, a line guide on the said bar, a rear carrier slidable along the bar between the front carrier and its line guide, said front and rear travelers having pivoted pawls to engage the cable and bind the same in connection with their respective carriers, pulleys carried by the

pawls of the front and rear carriers, a hook on the pawl of the rear carrier, means on the pawl of the front carrier for engagement by said hook, a cord for advancing the front carrier, said cord being connected to the line guide of the bar and extending thence over the pulley of the rear carrier, and a cord for advancing the rear carrier connected with the pawl of said carrier and extending thence over the pulley of the pawl of the front carrier, substantially as set forth.

2. A line carrier having a line guide comprising a shoe in hook form, a pivoted lever rocking in the direction of movement of the line carrier, and having at one end a lateral head complementary to and closing the hook form shoe of the guide and an operating cord connected with the said lever and adapted to adjust the same to closed position, substantially as set forth.

3. A line carrier comprising a front traveler having a pivoted pawl and means on said pawl for engagement by a hook on a rear traveler, said rear traveler movable toward the front traveler and provided with a hook to engage with the pawl of the front traveler and operating cords, substantially as set forth.

4. A line carrier comprising a front traveler and a rear traveler movable toward the front traveler, the rear traveler having a pivoted pawl and a hook carried thereby, and the front traveler having a pivoted pawl provided with means for engagement by the said hook, substantially as set forth.

LEWIS D. SHAFFER.

Witnesses:

GEORGE STATLER,
W. H. BLOUGH.