No. 754,833. PATENTED MAR. 15, 1904.

H. C. ALBEE.

SEINE HAULING APPARATUS.

APPLICATION FILED AUG. 5, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

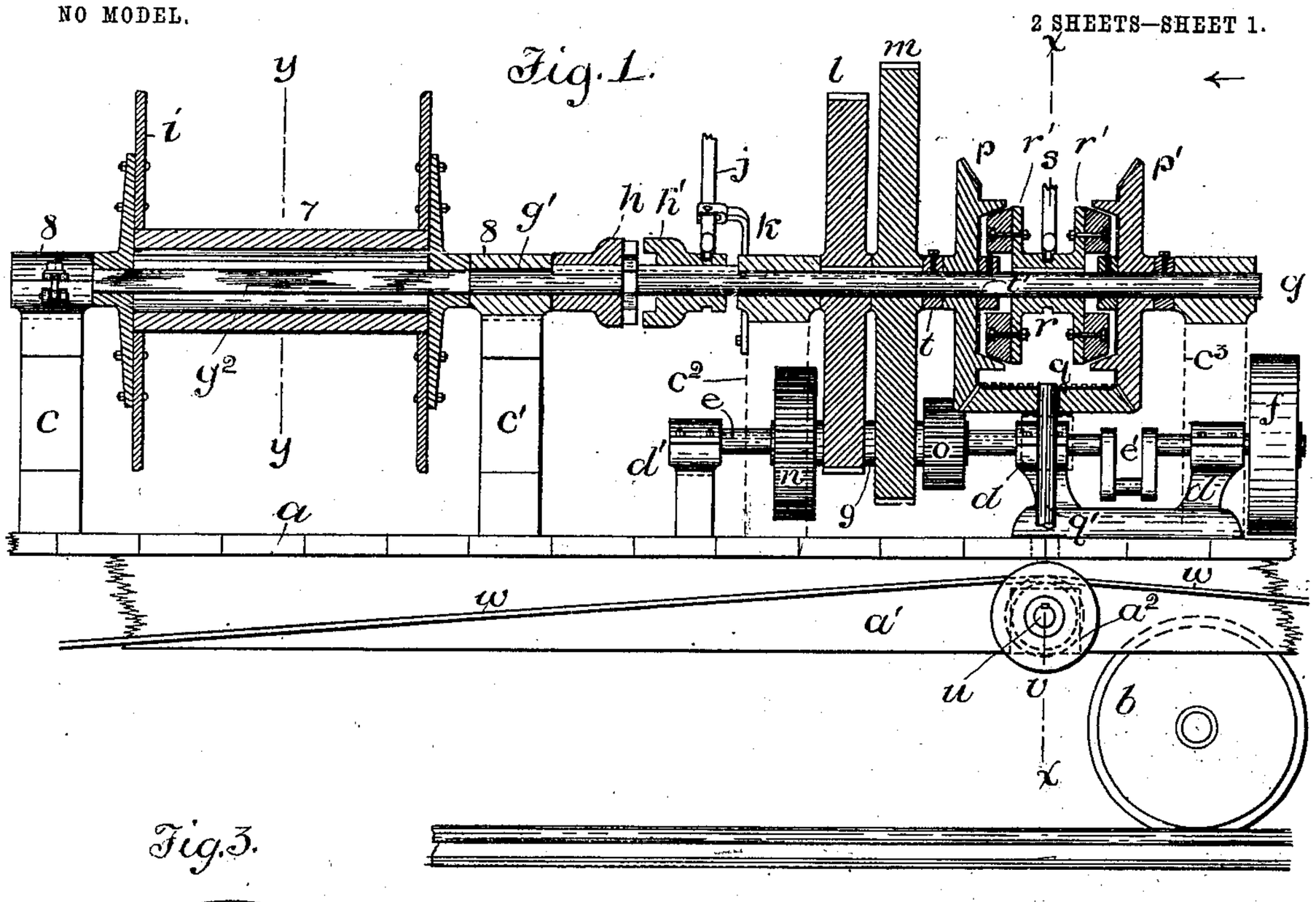


Fig. 3.

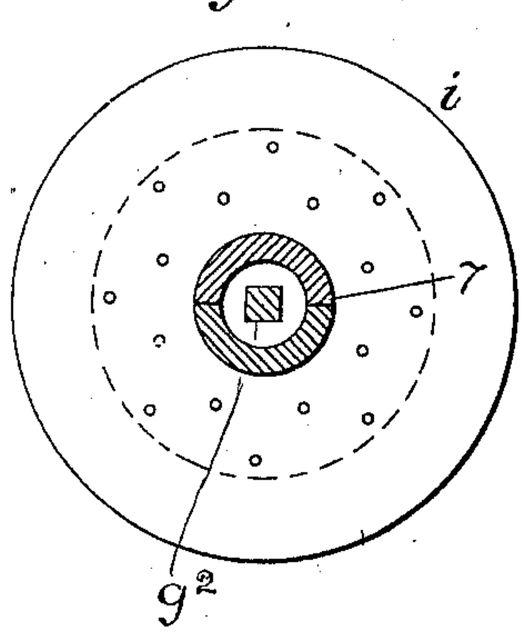


Fig. 5.

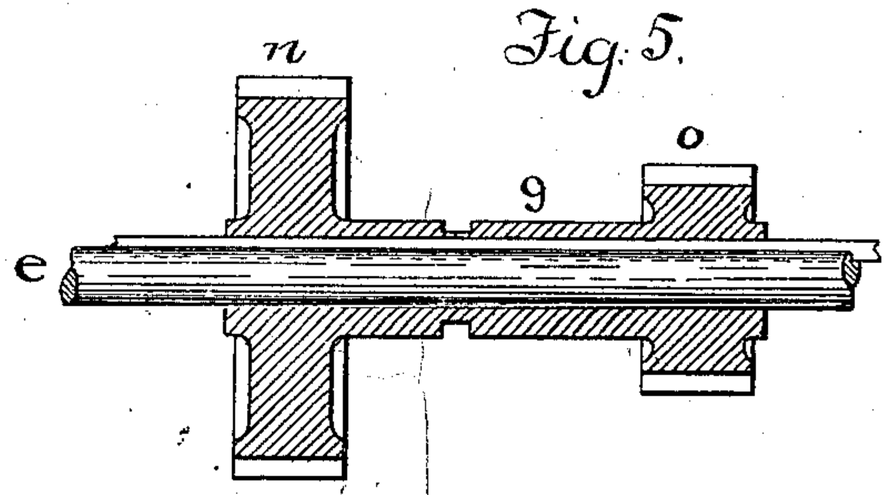
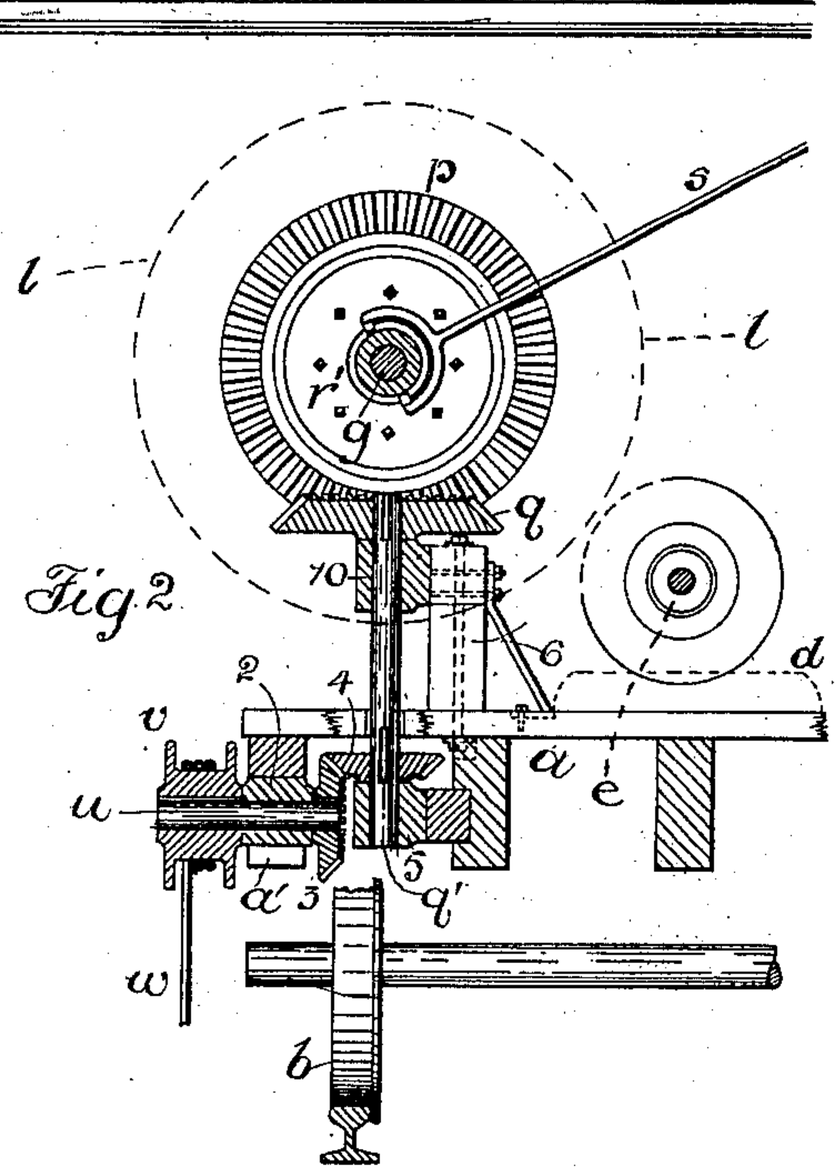


Fig. 2.



WITNESSES

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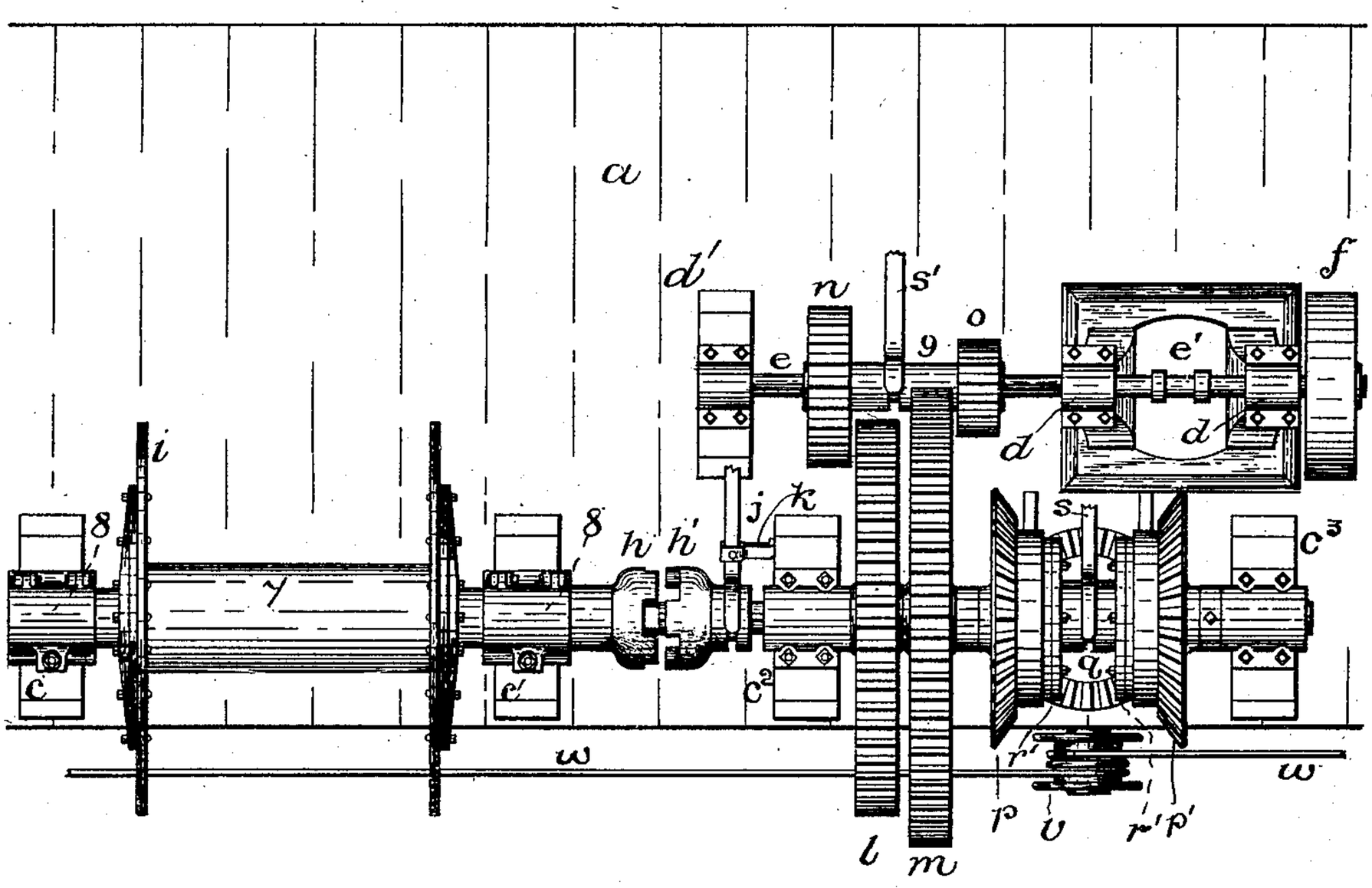
SEINE HAULING APPARATUS.

APPLICATION FILED AUG. 5, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.



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No. 754,833. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

HARRY CLARK ALBEE, OF PORTLAND, OREGON.

SEINE-HAULING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 754,833, dated March 15, 1904.

Application filed August 5, 1903. Serial No. 168,285. (No model.)

To all whom it may concern:

Be it known that I, HARRY CLARK ALBEE, a citizen of the United States, and a resident of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Seine-Hauling Apparatus, of which the following is a specification, reference being had to the accompanying drawings as a part thereof.

My invention has for its object to provide a movable apparatus to be used in seine-fishing for transporting and hauling the seine-nets; and to this end my invention comprises a car running on a railed way or track parallel to the shore-line and provided with a spool and machinery for rotating the same to wind up the seine, also for moving the car on the track, and comprising, further, the special features and contrivances hereinafter described and claimed.

Figure 1 shows a partial side elevation of a car and the net-winding apparatus mounted thereon in longitudinal section. Fig. 2 is a partial sectional elevation on a line $x\ x$ of Fig. 1. Fig. 3 is a cross-section of the winding-spool on a line $y\ y$. Fig. 4 is a partial plan of the car corresponding with Fig. 1; and Fig. 5 is a detail in longitudinal section of the sliding pinions $n\ o$, being an integral part of the sleeve 9.

My seine-winding apparatus is mounted on a flat car a, which travels on a track extending substantially parallel to the shore-line. On the bed of the car are frames $c\ c'\ c^2\ c^3$, supporting the boxes for the shafts $g\ g'$. Said shafts may be coupled by a clutch $h\ h'$, operated by a shipper or shifting-lever j, fulcrumed in a support. On the shaft g is mounted a double friction-clutch comprising loose gears $p\ p'$ in constant engagement with the intermediate gear q. Either of the gears $p\ p'$ may be connected with the shaft g by moving the shifting piece r, sliding on a feather and operated by a shipper or shifting-lever s.

The gear q is keyed to the upper end of the shaft q', journaled in boxes 5 and 10, as shown in Fig. 2. There are also keyed on the shaft g gears $l\ m$ for transmitting at different speeds to the shaft g the motion of the pinions $n\ o$ on the engine-shaft e. The shaft e is journaled in the bearings $d\ d$, constituting a part of the engine-bed, and in the bearing d', and it is provided with a crank e'. The pinions $n\ o$ slide longitudinally on the shaft e and are movable to throw them into engagement with the gears $l\ m$, respectively, by a shifting-lever s'. (See Fig. 4.) As shown in Fig. 5, the gears $n\ o$ are an integral part of a sleeve 9, sliding on a feather on the shaft e. The latter is also provided with the usual fly-wheel f.

The bevel-gear 4, (see Fig. 2,) keyed on the lower end of the shaft q', meshes with the bevel-gear 3, which is keyed on the inner end of the shaft u. On the outer end of this shaft, journaled in the bearing 2, is keyed the traction-drum v, upon which are wound a few turns of the traction cable or rope w, each end of the latter being secured to suitable fastenings at either end of the track.

The seine-spool i (see Fig. 1) is rigidly mounted on the shaft g', the latter being square in cross-section for a portion of its length, as shown at g^2, Fig. 3, to prevent the turning of said spool, but round at the ends where it is journaled in the bearings 8 and 8'. Such bearings comprise journal-boxes provided with hinged caps, as shown in Fig. 4, to admit of the removal of the shaft g' and the spool i, mounted thereon, and thus to facilitate the removal of the wound-up net and the substitution of another shaft-section g' and spool mounted thereon.

My apparatus works as follows: A track is supposed to be laid parallel to the shore-line, along the locality of the river where the seine-fishing is carried on. A number of spools i are provided, each having a shaft g, to be removably journaled in its bearings 8 8, as described. It being desired to haul in a cast-net the car is moved to the proper place. Either of the pinions $n\ o$ is thrown into en-

gagement with its respective gear *l* or *m*, according to the speed desired. Next the shifting-lever *s* is operated to connect either of the friction-gears *p* or *p'* with the shaft *g*, thereby transmitting motion to the gear *q* according to the direction in which the car is to travel. The rotation of the gear *q* is thence transmitted through the shaft *q'*, gears 4 and 3, and shaft *u* to the traction-drum *v*, and by the friction of the cable *w*, wound on such drum, the car is moved one way or the other. The car having arrived at its proper position, the shifting-lever *s* is restored to its neutral position in order to release the traction devices. The rope fastened to the end of the seine is then secured to the spool *i* and the movable part of the clutch *h'* is thrown into engagement with the fixed part *h* by operating the shifting-lever *j*, and the motion of the shaft *g* being then transmitted to the spool-shaft *g'*, so as to rotate the spool and wind up the net. Of course previously to connecting the shaft *g* with the shaft *g'* the speed of the shaft *g* is predetermined by throwing either of the transmitting-pinions *n o* into engagement with the gears *l* or *m*. The net having been wound up, the hinged boxes 8 8 are opened, and the shaft *g'* and its spool may then be removed and another substituted in its place. To unwind a net, the shaft of its spool is simply allowed to revolve loosely in its bearings.

Having fully described my invention, what I claim is—

1. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon; a horizontal engine-shaft *e*, counter-shafts *g*, *g'*, journaled in said bearings; a spool fast on the shaft *g'*; a clutch adapted to couple the shaft *g'* with the shaft *g*; means for transmitting the motion of the engine-shaft *e* to the counter-shaft *g*, at variable speed; a transversely-journaled shaft *u*; gearing adapted to rotate such shaft; a drum on such shaft; a friction-cable running on such drum, and mechanism, including a clutch, for transmitting the motion of the shaft *g*, to the operating-gear of the shaft *u*, such mechanism being adapted to rotate the drum-shaft *u*, in either direction, substantially as described.

2. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon; engine-shaft *u* and counter-shafts *g g'*, journaled in said bearings; a spool fast on the shaft *g'* the journaled boxes for said shaft *g'* being made with removable caps, so as to allow the removal of such shaft together with its spool and the substitution of another shaft and spool; a clutch adapted to couple the shaft *g'* to the shaft *g*; means for transmitting the motion of the engine-shaft *e* to the counter-shaft *g* at variable speed; a transversely-journaled shaft *u*; gearing adapted to rotate such shaft; a drum on such shaft; a friction-cable on such drum and mechanism, including a clutch, for transmitting the motion of the shaft *g* to the operating-gear of the shaft *u*, such mechanism being adapted to rotate the drum-shaft *u*, in either direction, substantially as described.

3. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon; engine-shaft *e* and counter-shafts *g*, *g'*, journaled in said bearings; a spool fast on the shaft *g'*, the journal-boxes for the shaft *g'* being made with removable caps so as to allow the removal of such shaft together with its spool and the substitution of another shaft and spool; a clutch adapted to couple the shaft *g'* with the shaft *g*; gears of different speed, fast on the shaft *g*; movable gears of different speed on the engine-shaft *e*, and means for placing said gears of the respective shafts in engagement with each other; a transversely-journaled shaft *u*, gear adapted to rotate such shaft; a drum on such shaft; a friction-cable on such drum, and mechanism, including a clutch, for transmitting the motion of the shaft *g* to the operating-gear of the shaft *u*; such mechanism being adapted to rotate the drum-shaft *u*, in either direction, substantially as described.

4. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon; engine-shaft *e* and counter-shafts *g*, *g'*, journaled in said bearings; a spool fast on the shaft *g'*, the journaled boxes for the shaft *g'* being made with removable caps, so as to allow the removal of such shaft together with its spool, and the substitution of another shaft and spool; a clutch adapted to couple the shaft *g'* with the shaft *g*; gears of different speed fast on the counter-shaft *g*; a sleeve 9 made with integral gears *n*, *o*, longitudinally movable on the engine-shaft *e*; and a shifting-lever for placing either of the gears *n*, *o*, in engagement with the gears on the shaft *g*; a transversely-journaled shaft *u*; gearing adapted to rotate such shaft; a drum on such shaft; a friction-cable on such drum, and mechanism, including a clutch, for transmitting the motion of the shaft *g*, to the operating-gear of the shaft *u*; such mechanism being adapted to rotate the drum-shaft *u*, in either direction, substantially as described.

5. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon; a horizontal engine-shaft *e*, counter-shafts *g*, *g'*, journaled in said bearings; a spool fast on the shaft *g'*; a clutch adapted to couple the shaft *g'* with the shaft *g*; and means for transmitting the motion of the engine-shaft *e* to the counter-shaft *g*, at variable speed, substantially as described.

6. A seine-hauling apparatus comprising a car and suitable supports or bearings thereon;

engine-shaft *e* and counter-shafts *g*, *g'*, journaled in said bearings; a spool fast on the shaft *g'*, the journaled boxes for said shaft *g'* being made with removable caps, so as to allow the removal of such shaft together with its spool and the substitution of another shaft and spool; a clutch adapted to couple the shaft *g'* to the shaft *g;* and means for transmitting the motion of the engine-shaft *e* to the counter-shaft *g* at variable speed, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

HARRY CLARK ALBEE.

Witnesses:

T. J. GEISLER,

A. CALEF.