(No Model.) 3 Sheets—Sheet 1.

T. W. BURT.

SETTING APPARATUS FOR SIGNALS AND GATES.

No. 402,299. Patented Apr. 30, 1889.

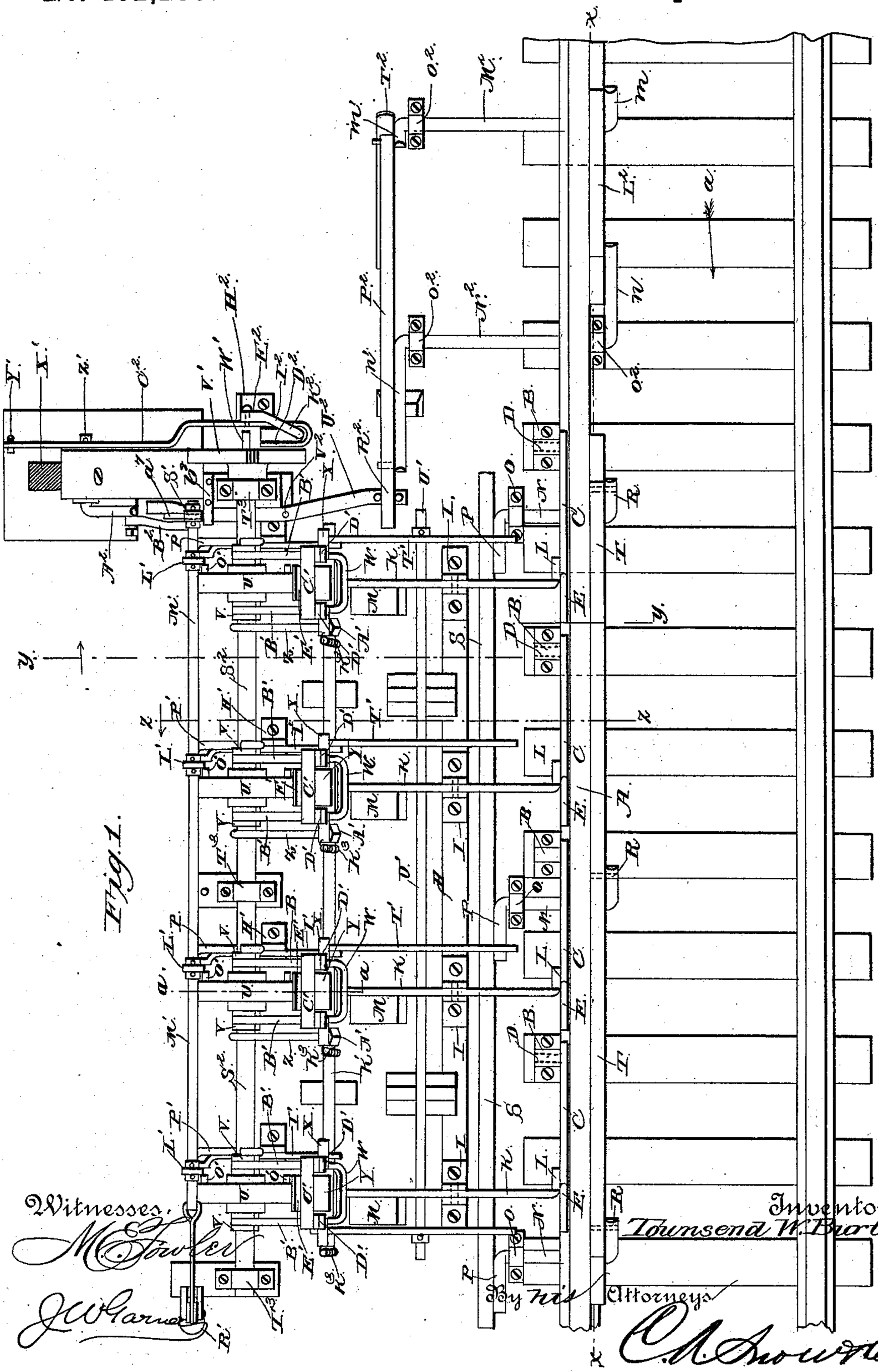

Fig. 1.

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(No Model.) 3 Sheets—Sheet 2.

T. W. BURT.

SETTING APPARATUS FOR SIGNALS AND GATES.

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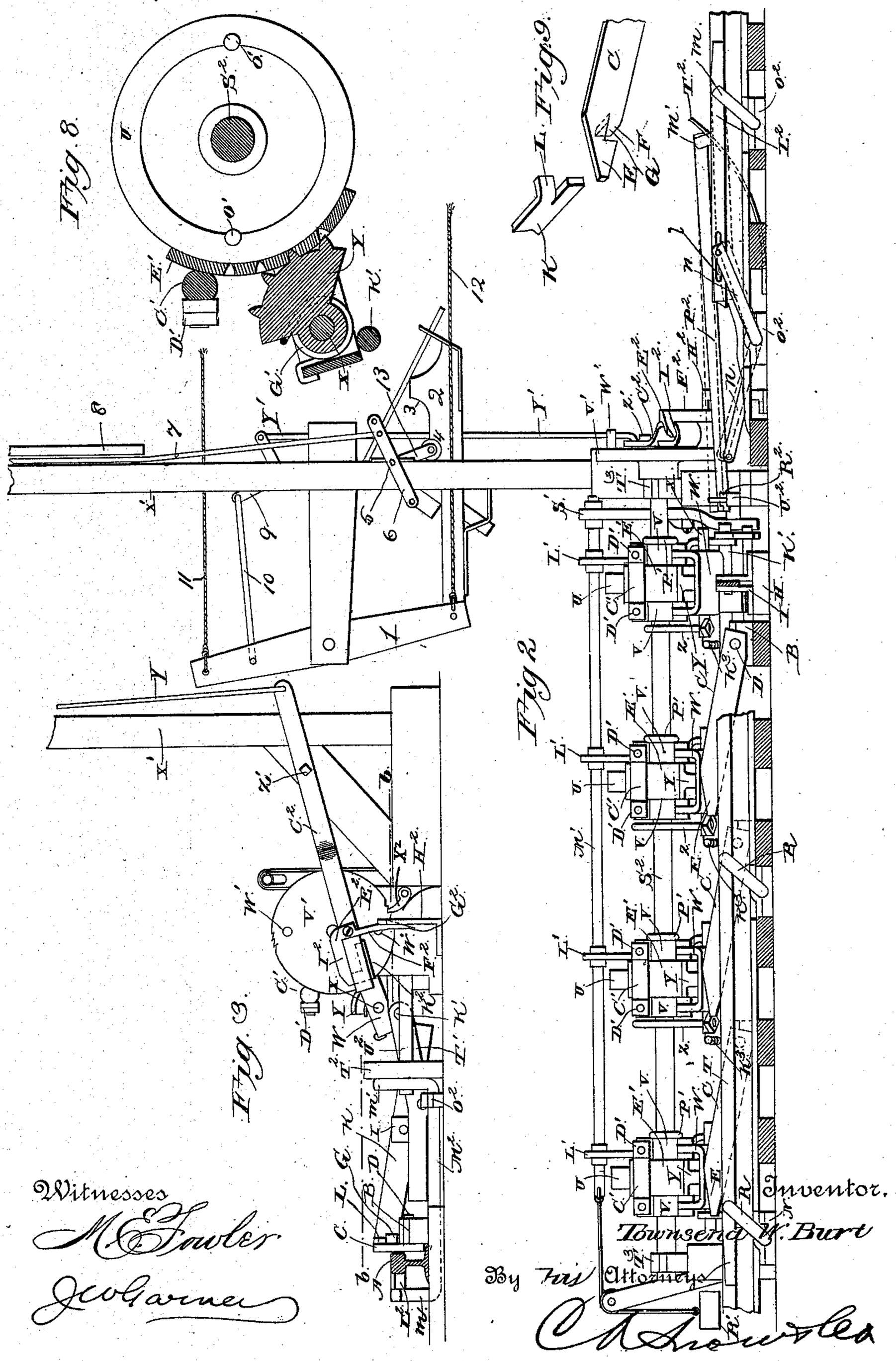

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(No Model.) 3 Sheets—Sheet 3.

T. W. BURT.

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Fig 4

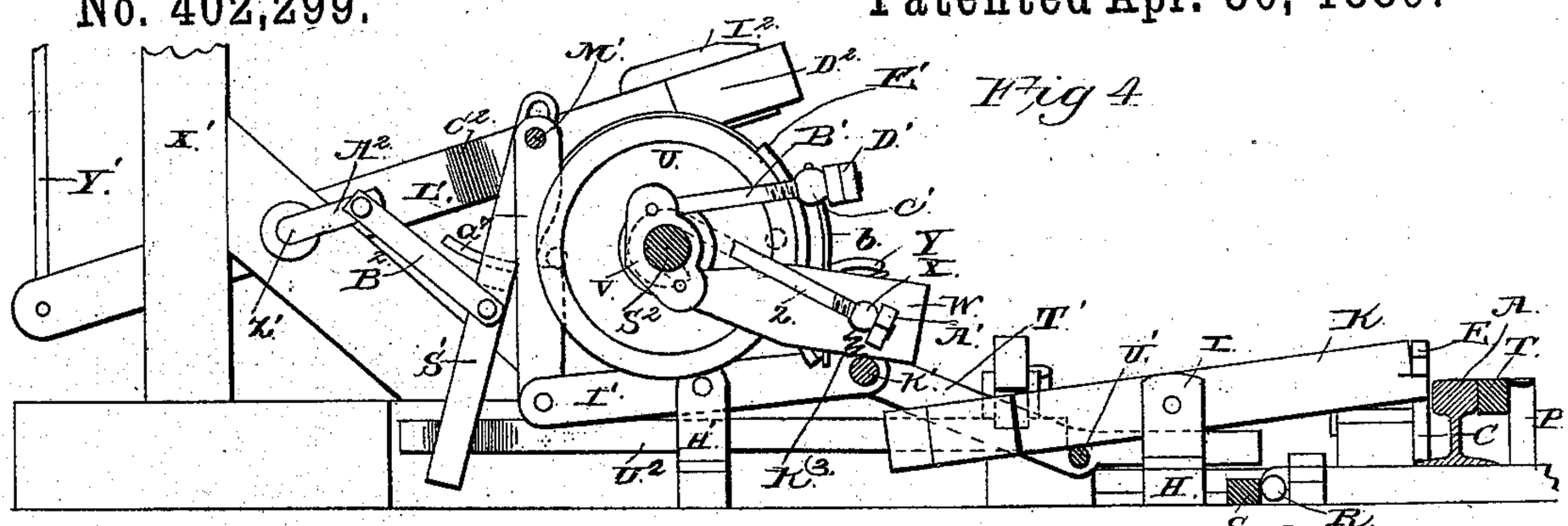


Fig. 5.

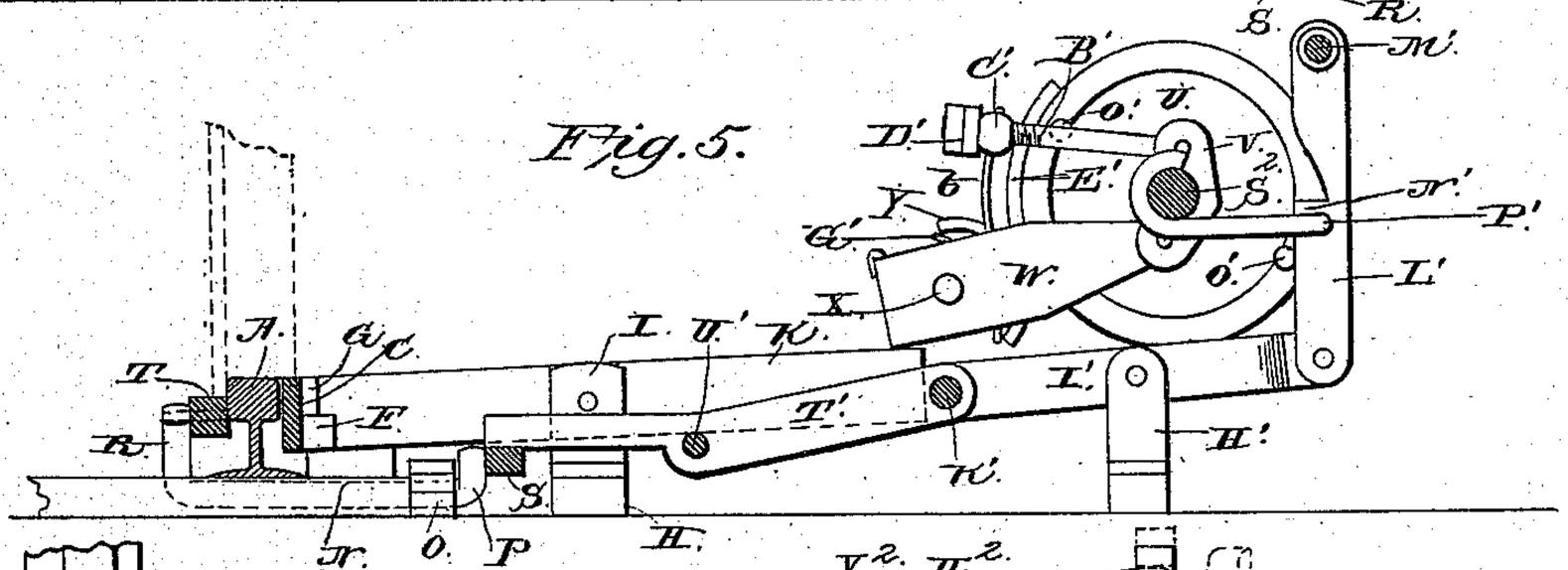


Fig. 6.

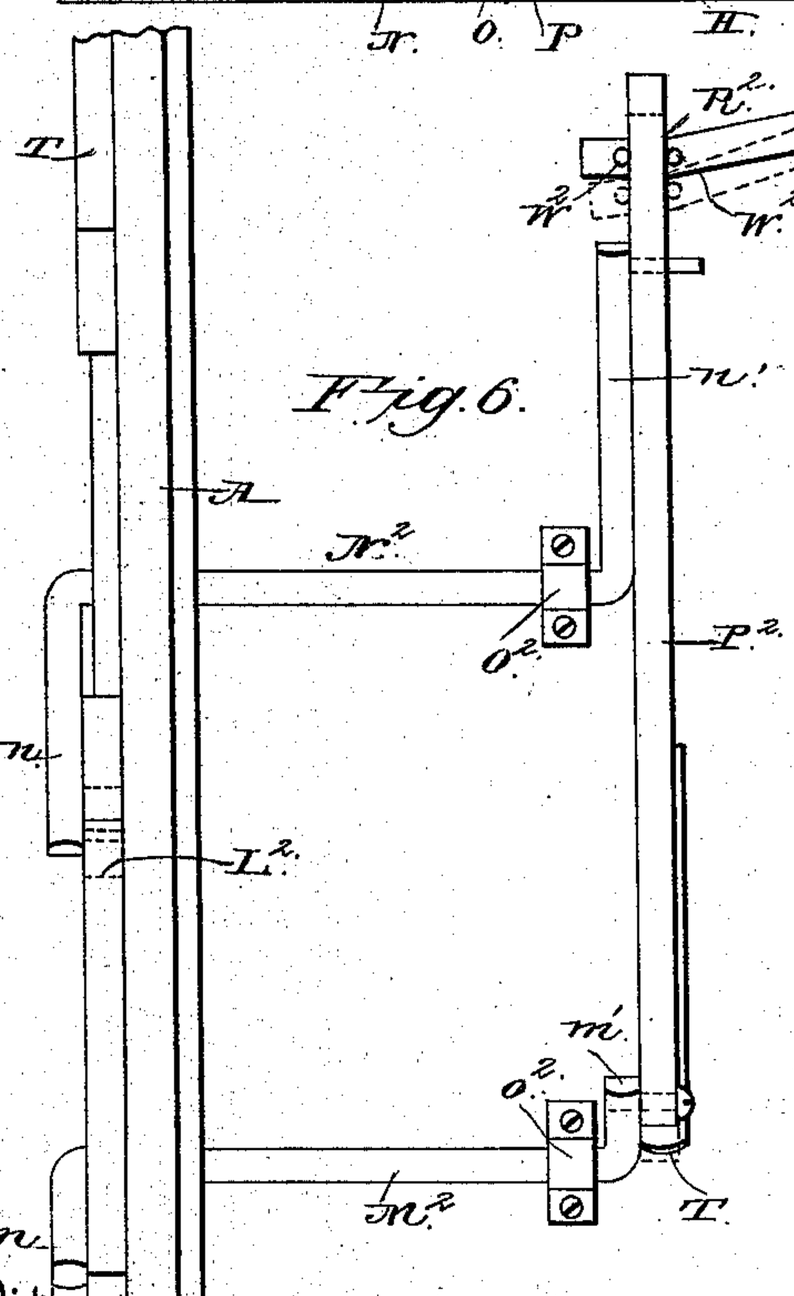
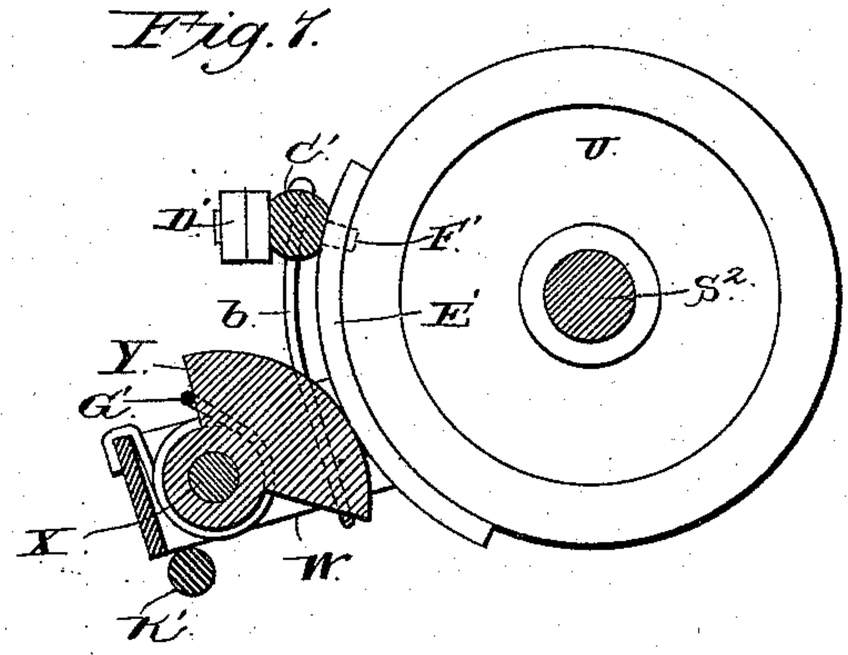


Fig. 7.



Witnesses

M. Fowler

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By his Attorneys

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UNITED STATES PATENT OFFICE.

TOWNSEND W. BURT, OF MINEOLA, NEW YORK.

SETTING APPARATUS FOR SIGNALS AND GATES.

SPECIFICATION forming part of Letters Patent No. 402,299, dated April 30, 1889.

Application filed October 18, 1887. Serial No. 252,721. (No model.)

To all whom it may concern:

Be it known that I, TOWNSEND W. BURT, a citizen of the United States, residing at Mineola, in the county of Queens and State of New York, have invented a new and useful Improvement in Setting Apparatus for Signals, Railroad-Gates, &c., of which the following is a specification.

My invention relates to an improvement in automatic setting apparatus; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The present invention is an improvement on my patent, No. 338,824, dated March 30, 1886.

The object of this invention is to provide an apparatus that is to be automatically operated by the wheels of a passing train, so as to elevate at a comparatively low rate of speed a signal-gate or the like device by a step-by-step motion, whereby the strain and wear on the various parts are reduced to a minimum and the danger of breaking the parts by operating them too rapidly is avoided.

In the accompanying drawings, Figure 1 is a top plan view of a signaling apparatus embodying my improvements. Fig. 2 is an elevation of the same, partly in section, on the line *x x* of Fig. 1. Fig. 3 is an end elevation of the same. Fig. 4 is a vertical transverse sectional view taken on the line *y y* of Fig. 1 and looking in the direction indicated by the arrow intersecting said line. Fig. 5 is a similar view taken on the line *z z* of Fig. 1 and looking in the direction indicated by the arrow intersecting said line. Fig. 6 is a detail view, partly in top plan and partly in section, on the line *b b* of Fig. 3. Fig. 7 is a detail view, partly in section, of the preferred form of the mechanism to engage the wheels on the operating-shaft. Fig. 8 is a similar view of a modified form of the same. Fig. 9 is a detailed perspective view of the engaging ends of one of the operating-levers and one of the weighted levers, showing the same disconnected.

A represents the railway-track, beyond the outer side of one of the rails of which, at suitable distances apart, are secured a number of bearing-blocks, B.

C represents a series of operating-levers, each of which is provided at one end with an outwardly-extending spindle, D, journaled in one of the blocks B, the said levers being arranged longitudinally on the outer side of the adjacent track-rail. The free ends of the levers C are inclined downward, as at E. In the lower edge of each lever C, near the free end thereof, is a notch, F, and from the outer side of each lever, near its free end and alongside the notch, projects a stud, G.

H represents a sill, which is arranged longitudinally at a suitable distance from one side of the track. This sill has on its upper side a number of pairs of brackets, I, which are arranged opposite the notches in the levers C.

K represents a series of lever-arms, which are arranged at right angles to the track, are fulcrumed near their centers between the pairs of brackets, have their inner ends engaging the notches F of the levers C, and provided with studs L, that bear on the studs G. The outer ends of the lever-arms are provided with weights M, the function of which is to counterbalance the inner ends of the levers K and cause the same to normally support the levers C in an inclined position, so that the free ends of said levers C will be raised above the level of the top of the adjacent track-rail.

N represents a series of rock-shafts, which are journaled in bearings O, secured below the level of the track-rails, the said shafts being arranged transversely with relation to the track-rail and extending under the same. At the outer ends of the rock-shafts N are right-angled crank-arms P, which are normally arranged in a horizontal position, and at the inner ends of the said rock-shafts are crank-arms R, which are arranged at a suitable distance from the inner side of the adjacent track, and are normally in an inclined position, said crank-arms P being at an angle to the crank-arms R.

S represents a longitudinal weight-bar, which is arranged parallel with the track, and is connected to the free ends of the crank-arms P by means of suitable crank-pins.

T represents a presser-bar, which is pivotally connected to the free ends of the crank-arms R by means of crank pins or bolts, is

arranged on the inner side of the adjacent rail, being counterbalanced by the weight-bar, and is normally supported in an elevated position with its upper side flush with the top of the track-rail, so that it will be depressed by the flanges of the wheels of a passing train.

S^2 represents an operating-shaft, which is arranged parallel with the track at a suitable distance from one side thereof, and is journaled in bearings T^3.

U represents a series of wheels, which are rigidly secured to the shaft S^2 in line with the levers K, the number of the said wheels being equal to the number of the said levers. Loosely journaled to the shaft S^2, and arranged on opposite sides of the wheels U, are links V, which have their upper and lower ends bifurcated to form ears, as shown, said links being normally in a vertical position.

W represents a series of U-shaped yokes, which have the outer ends of their arms pivoted between the ears on the lower ends of the links, said yokes extending toward the track a suitable distance, as shown.

X represents rods, which are journaled in aligned openings near the inner free ends of the yokes, and on the said shafts, between the arms of the yokes, are journaled segmental eccentrics Y. One end of each of the rods X projects from one side of its yoke, and is provided with a transverse opening.

Z represents link-rods, which have their outer ends pivotally connected to the shaft S^2 and their inner threaded ends slipped freely through the transverse openings in the rods X and provided with adjusting-nuts A′.

B′ represents rods, which have their outer ends pivoted between the ears on the upper ends of the links V. The said rods extend inward toward the track, are connected together in pairs by cross-bars C′, which have transverse openings, through which the free ends of the rods pass, and nuts D′ are screwed onto the threaded free ends of the rods B′ and bear against the rear sides of the cross-bars.

E′ represents friction-shoes, which are adapted to the contour of the wheel U, bear against the rear sides of the peripheries of the said wheels, have their lower ends bearing between the opposite peripheral faces of the wheels U and the eccentrics Y, and have openings near their upper ends, through which pass pins F′, that project from the front sides of the cross-bars C′. The peripheral faces of the eccentrics engage the opposing rear sides of the shoes.

b represents hangers that depend from the cross-bars C′ and support the segments.

G′ represents springs, which are secured to the eccentrics and bear against the inner ends of the yokes W, the function of the said springs being to normally turn the eccentrics downward, and thereby keep them in contact with the shoes.

When the free end of one of the yokes is raised, its front end, being pivotally connected at a point below the shaft S^2, will cause the eccentric segment to move toward the wheel U, and thereby compress the shoe so firmly against the periphery of the wheel as to lock it thereto and cause the wheel to partly rotate and partly turn the shaft. When the free end of the yoke begins to be lowered, the eccentric releases its pressure on the lower portion of the shoe, and the link-rod Z, connecting the shaft S^2 with the free end of the yoke, causes the links V to partly turn on the shaft, so as to force the rods B′ a slight distance rearward, so as to relieve the compression of the cross-bar C′ against the upper end of the shoe, and the latter is thereby caused to lose its frictional grip of the wheel, and consequently the wheel and the shaft are prevented from being turned in a retrograde direction, as will be readily understood.

H′ represents a series of brackets or standards that are arranged below the shaft S^2, as shown, and to the said standards or brackets are fulcrumed levers I′. The inner ends of the said levers are connected together by a horizontal rod, K′, which is under the free inner ends of the yokes, and is connected thereto by springs K^3. To the outer ends of the levers I′ are loosely jointed the lower ends of vertical detents L′, which have their upper ends connected rigidly to an endwise movable rod, M′, and are further provided on their rear sides with shoulders or notches N′, adapted to be engaged by stop-pins O′, that project from one side of each wheel U at diametrically-opposite points. Arms or links P′ are pivotally connected to the shaft S^2, are free to slide longitudinally thereon, and have their outer ends loosely connected to the detents L′, the function of the said arms or links being to maintain the detents in a vertical position.

To one end of the slide-rod M′ is connected an operating-weight, R′, by means of a cord or rope that passes over a suitable pulley. If preferred, a spring may be substituted for the weight, the function of the weight or spring being merely to normally move the rod M′ so as to cause the detents to approach the adjacent wheels U in position to engage the stop-pins thereof. To the opposite end of the rod M′ is loosely attached the upper end of a vertical lever, S′, that is fulcrumed near its center, as shown, upon a curved arm, a^7, that projects from a suitable standard or brace, b^8.

T′ represents a series of link-levers, which have their front or outer ends pivoted to the rod K′ and their rear or inner ends resting upon but not connected to the weight-bar S. These link-levers are connected near their centers by a rod, U′, that bears under the weighted ends of the levers K.

To one end of the shaft S^2 is rigidly secured a wheel, V′, that is provided at diametrically-opposite points with ratchet-teeth, and has tappet-pins W′ projecting from one side at

suitable distances apart, two of such pins being here shown at diametrically-opposite points; but the number of said pins may be varied according to circumstances.

X′ represents the vertical standard of a home-signal such as described and claimed in Letters Patent of the United States No. 342,860, granted to me June 1, 1886; and Y′ represents the operating-rod connected to the bell-crank lever 9. The latter is connected by a rod, 10, to an oscillating lever, 1, to the ends of which the operating-cables 11 12 are connected. The slide-bar 2, having the cams 3 4, is connected to the lower end of the lever 1, and the cams of the slide-bar operate a crank-arm, 13, secured to a rock-shaft, 5, which has a lever, 6, that is connected to the signal-arm 8 by a rod, 7.

The parts hereinbefore designated by numerals are not more fully described herein for the reason that their construction and operation are fully set forth in my before-mentioned Letters Patent.

Z′ represents a rock-shaft, which is journaled in a suitable bearing near the base of the standard and has a crank-arm, A^2, at one end. This crank-arm is connected to the lever S′ at a slight distance below the fulcrum by means of a link, B^2. To the opposite end of the rock-shaft Z′ is attached an operating-lever, C^2, which has its outer end connected to the operating-rod Y′, and has its inner end bent in the form of the letter **U**, as shown in Fig. 1, so as to form a stop or shoulder, D^2, adapted to be engaged by the tappet-pins W′.

E^2 represents a bell-crank locking-lever, which is pivoted to the operating-lever at a suitable distance from the inner end thereof. The downwardly-extending locking-arm F^2 of this lever is provided with a detent or shoulder, G^2, adapted to engage under a catch, H^2. The horizontal inwardly-extending arm I^2 of the locking-lever is bent first downward and then outward to form a tripping-arm, K^2, adapted to be engaged by the tappet-pins successively when the wheel V′ rotates, so as to trip the locking-arm from the catch H^2, and thereby release the lever C^2.

L^2 represents an operating-bar, which is arranged at a suitable distance from the inner end of the pressure-bar T and in line therewith, and bears against the inner side of the same track-rail.

M^2 and N^2 represent a pair of horizontal rock-shafts, which are journaled in bearings O^2, extend transversely under the rail A, and have crank-arms *m* and *n* at their inner ends, inclined at different angles and pivotally connected at their upper ends, near the extremities of the operating-bar, so as to normally support the latter in a horizontal position, flush with the top of the rail. The pivot-pin of the arm *n* works in a slot, *l*, at the inner end of bar L^2. The outer ends of these rock-shafts have inclined crank-arms *m′* and *n′*, arranged at different angles, and pivotally connected to the upper ends of the said crank-arms is a link-bar, P^2, the inner end of which is provided on its under side with a notch, R^2.

T^2 represents a spring, that bears against the outer end of the link-bar.

U^2 represents a horizontal lever, which is fulcrumed at V^2 and has its outer end adapted to engage the lower end of the lever S′. The inner end of this lever U^2 is normally engaged by the notch R^2 of the link-bar, and is provided with a pair of vertical guide-pins, W^2, arranged on opposite sides of the said link-bar. A spring-actuated pawl, X^2, bears against the periphery of the wheel V′, and is adapted to engage the ratchet-teeth thereof, as shown in Fig. 3.

The operation of my invention is as follows: When a train is running in the direction indicated by the arrow *a* in Fig. 1, the flanges of its pilot-wheels first strike the outer end of the operating-bar L^2, depress the same, and thereby partly turn the rock-shaft M^2, so as to cause the crank-arm at the outer end of the said rock-shaft to draw forward on the link-bar P^2, and, as the notch of the latter is in engagement with the lever U^2, the latter is swung horizontally on its pivot. Its outer end strikes the lower end of the lever S′, and the latter is caused to draw the rod M′ forward, so as to move the detents L′ out of engagement with the stop-pins O′ of the wheels U. Bar K′, which is the fulcrum of lever T′, will fall by its own weight, and notches N′ will be raised above pins O′, so that bar L^2 need not be held depressed after once having been actuated. When the wheels of the train reach the pressure-bar T, they depress the same to the position indicated in Fig. 5, thereby partly turning the rock-shaft N, and causing the crank-arm R thereof to raise the counter-balance or weight-bar S a slight distance. As the bar S rises, it elevates the inner ends of the link-levers T′ slightly, and causes the rod U′ to bear against the lower edges of the levers K, but does not operate the said levers, since the fulcrum K′ of levers T′ is now in its depressed position, the pressure-bar being lowered so as to permit the wheels to pass freely over the track. As the advance wheel passes over the elevated end of each operating-lever C in succession, the tread of the wheel depresses each of the said levers C from the position shown in Figs. 2 and 4 to the position shown in Fig. 5, thereby causing each lever K to be operated in succession, and the said levers K to elevate the inner ends of the yokes W one after another, with the result that the segments cause the shoes to engage the wheels U, as fully hereinbefore described, and thereby the shaft S^2 is moved through half a rotation by a series of successive actions, as will be readily understood, which brings the pins O′ on the side of each wheel, opposite those previously engaged, into position to be engaged by the shoulders or stops of the detents L′.

From the foregoing it will be understood

that the shaft S^2 is turned only a slight distance by each lever C and its connections, thereby requiring the successive action of all of the levers C to complete the semi-rotation, and consequently giving the shaft S^2 a step-by-step motion, and relieving the mechanism of the violent shock which would result if the shaft were caused to fully complete its movement by the action of a single operating-lever; hence the durability of my improved signaling apparatus is not impaired, and the same is prevented from readily getting out of order.

The operating-levers C are so adjusted that the wheels of the locomotive will operate them a sufficient number of times to cause the shaft S^2 to complete its half-rotation, as before described, and cause the pins on the sides of the wheels U opposite those previously engaged by the stops or shoulders of the detents to engage with the latter, thereby lowering the said detents and causing them to raise the inner ends of the levers I′, so as to elevate the rod K′ and cause the latter to bear under the free ends of the yokes W, so as to support the latter in the elevated position shown in Fig. 4 and prevent them from falling. This raises the free ends of the yokes sufficiently to permit the operating-levers C and the weighted levers K to be idly moved after the train has passed without affecting the operating-shaft, and consequently without affecting the signal connected thereto. This prevents mischievous persons from tampering with the signal and causing the same to be set at "danger" needlessly. When the signal is in its normal position, set for "safety," the lever C^2 is in the position shown in Fig. 3, with the locking-lever E^2 engaging the catch H^2. While the shaft S^2 is being moved through half a rotation step by step, as before described, one of the pins W′ of wheel V′ first strikes the under side of the trip-arm K^2 of locking-lever E^2 and turns the latter partly on its pivot, so as to disengage the arm F^2 from the catch H^2, and thereby release the lever C^2. As the tappet-pin continues to rise by the revolutions of the shaft and wheel, it engages the shoulder D^2 of the lever C^2, and thereby elevates the inner end of said lever, and causes the outer end thereof to depress the rod Y′, and thereby set the signal to "danger." Further revolution of the wheel V′ carries the pin W′ beyond the shoulder of the lever C^2 and effectually clears it thereof. The signal-connections are so nearly balanced that when the lever C^2 has been thus raised said lever C^2 will be maintained in its elevated position. This movement of the lever C^2 imparts rocking motion to the shaft Z′, causing the same to turn in its bearings and its crank-arm A^2 to draw outward on the lever S′ by reason of the link B^2, so as to move the lower end of the said lever to a position where it will not be engaged by the lever U^2, as shown in Fig. 4. When the train reaches the home-signal of the next block ahead, which is connected to the distance-signal just described by suitable cables—such as fully described in my before-mentioned Letters Patent of the United States No. 342,860—it operates the same, and causes the distance-signal to be lowered to "safety," and also the lever C^2 to be lowered to its normal position ready to be engaged by the pin of wheel V′. The locking-lever E^2, by its arm F^2, then engages under the catch H^2 and holds the signal at "safety." When the wheels of a train running in opposite direction from that indicated by the arrow *a* reach the pressure-bar T, they depress the same, thereby turning the rock-shaft N so as to raise the weight-bar S, and the bar K′, being held in an elevated position by the bars I′, as before stated, causes the weighted bar S to elevate the free ends of the link-levers T′. The fulcrum K′ of these levers being now held in its elevated position, the rod U, which connects the said link-levers, will raise the outer ends of the weight-levers K, and thereby depress the inner ends thereof, and consequently lower the free ends of the operating-levers C to the level of the top of the track, and thereby prevent the said levers C from being operated by the wheels. When the advance wheel of the train, running in the opposite direction from that represented by arrow *a*, strikes the inner end of the bar L^2, it depresses said inner end of said bar before depressing the opposite end of the bar, and thereby turns the rock-shaft N^2, and causes the arm *n*′ of the same to elevate the inner end of the link-bar P^2, so as to disconnect it from the lever U^2, and thereby prevent the detents from being tripped, and consequently preventing the signal from being operated. After a train passes in either direction the weight-bar descends, raises the pressure-bar, and causes the link-levers to release the weighted levers, and the latter restore the operating-levers C to their normal elevated position ready to be operated by the wheels of a train, even though they should become frozen to the track in cold weather.

In Fig. 8 I illustrate a modified form of the mechanism for gripping the wheels U, in which I discard the hanger *b*, that depends from the cross-bar C′, and provide the eccentric segment with teeth to gear with the shoe. Other modifications may be made without departing from the spirit of my invention, and I do not limit myself to the precise construction shown and described herein.

While I have shown and described a series of successively-operated levers to work a corresponding series of gripping devices, it will be understood that under certain circumstances one lever and one gripping device may be employed, as each wheel of the several cars of the train will move the gripping device one step in its engagement with the revolving shaft.

I do not wish to be restricted to the use to

which I may put this setting apparatus. I have shown its application to signals; but it may be employed to work railroad-gates or the like.

Having thus described my invention, I claim—

1. The combination of the revoluble operating-shaft having the wheels and the levers adapted to be operated in succession by a passing train, and each provided with a gripping device to engage the wheels of the shaft, for the purpose set forth, substantially as described.

2. The combination of the revoluble operating-shaft and the series of successively-operated independent levers provided with gripping devices to engage the shaft and rotate the same by a step-by-step motion, substantially as described.

3. The combination of the revoluble shaft having the wheel, the yoke having the gripping devices adapted to engage the wheel, and the lever to operate the yoke, substantially as described.

4. The combination of the revoluble shaft having the wheel, the yoke having the gripping devices adapted to engage the wheel, the lever K, to operate the yoke, and the lever C, connected to the lever K, substantially as described.

5. The combination of the revoluble shaft having the wheel, the gripping-shoe, and the eccentrically-pivoted yoke having the eccentric bearing against the shoe, substantially as described.

6. The combination of the revoluble shaft having the wheel, the links journaled on the shaft, and the yoke connected to the links and having the gripping devices to engage the wheel, substantially as described.

7. The combination of the revoluble shaft having the wheel, the links journaled on the shaft, the shoe arranged on the wheel, the rods connecting said shoe to the upper ends of the links, the yoke connected to the lower ends of the links and having the eccentric bearing against the shoe, substantially as described.

8. The combination of the revoluble shaft having the wheel, the links journaled on the shaft, the shoe-connections between the upper ends of the links, the yoke connected to the lower ends of the links, the eccentric journaled to the yoke and bearing against the shoe, and the hanger supporting the said eccentric, substantially as described.

9. The combination of the revoluble shaft having the wheel, the shoe, the yoke pivotally connected to the shaft at a point beyond the center of the latter, the eccentric journaled to the yoke, and the spring to keep the eccentric normally engaged with the shoe, substantially as described.

10. The combination of the revoluble shaft having the wheels, the gripping devices to engage the wheels, the levers to operate the gripping devices and thereby rotate the shaft, the detents to limit the rotation of the shaft, and the bar L^2, and connections between the same and the detents, substantially as described.

11. The combination of the rotating operating-shaft having the wheels, the detents to limit the rotation thereof, and the operating-bar L^2 and connections between the same and the detents, substantially as described.

12. The combination of the rotating operating-shaft having the wheels, the detents to limit the rotation thereof, the lever S′, connected to said detents and adapted to trip the same, the lever U^2, adapted to engage the lever S′, the operating-bar L^2, and connections between the said bar and the lever U^2, substantially as described.

13. The combination of the rock-shafts M^2 and N^2, having the oppositely-inclined crank-arms at their ends, the operating-bar L^2, having its ends supported by the cranks at one end of the said rock-shafts, and the link-bar P^2, supported by the crank-arms at the opposite ends of the rock-shafts, substantially as described.

14. The combination of the operating mechanism adapted to be actuated by a passing train, the detents to limit the movements of the operating mechanism, and the operating-bar L^2 and connections between the same and the detents to trip the latter, substantially as described.

15. The combination of the shaft having the wheels provided with the stop-pins, the yokes having the gripping devices to engage the wheels and rotate the shaft, the levers to raise the yokes, the movable detents to engage the stop-pins, and thereby limit the rotation of the shaft, and the levers I′, connected to the detents and engaging the free ends of the yokes when the latter are raised, substantially as described.

16. The combination of the pressure-bar, the weight-bar, connections between the said pressure and weight bars, whereby they are moved vertically in opposite directions simultaneously, the operating-levers, the weighted levers K, connected thereto, and connections between the weight-bar and the weighted levers to cause the latter to depress the operating-levers when the pressure-bar is lowered, substantially as described.

17. The combination of the pressure-bar, the operating-levers C, the weighted levers K, connected thereto, the link-levers T′, adapted to engage the levers K, and connections between the said link-levers and the pressure-bar to elevate the former when the latter is depressed, substantially as described.

18. The combination of the gripping devices, for the purpose set forth, the operating-levers C, the levers K, connected to the operating-levers and adapted to operate the gripping devices, the said levers K being weighted, substantially as described.

19. The combination of the rotating shaft having the wheels provided with the stop-pins,

the operating devices for the said shaft, the levers C, the levers K, connected to the same and operating devices, the pressure-bar, the detents to engage the stop-pins and thereby limit the rotation of the shaft, the link-levers T′, adapted to engage the levers K, and connections between the said link-levers and the detents and pressure-bar, substantially as described.

20. The combination of the rotating wheel V′, having the tappet-pins W′, the lever C^2, adapted to be operated by said pins, the catch, and the locking-lever pivoted to the lever C^2, and having the locking-arm to engage the catch, and the trip-arm adapted to be operated by the tappet-pins to disengage the locking-lever from the catch, substantially as described.

21. The combination of the operating-shaft having the wheels, the detaining devices to limit the movement of the shaft, the rock-shaft Z′, the lever C^2, connections between the same and the shaft, the lever U^2, the lever S′, connected to the detaining devices, connections between the same and the lever C^2 to throw the lever S′ in and out of connection with the lever U^2, the rock-shafts M^2 and N^2, having the crank-arms at opposite ends, the bar L^2, connected to the crank-arms at one end of the rock-shafts, and the link-bar P^2, connected to the crank-arms at the other end of the rock-shafts, and having the notch R^2 to engage the lever U^2, substantially as described.

22. The combination of the lever U^2, the rock-shaft N^2, having the crank-arms n and n', the link-bar supported by the arms m' and n', and having one end adapted to engage and disengage the lever U^2, and the bar L^2, supported by the arms m and n, substantially as described.

23. In a setting apparatus, the revoluble shaft having the wheels, the gripping device to engage the wheel and turn the same, and the lever to be operated by the passing train to work the gripping device, substantially as described.

24. In a setting apparatus, the combination of the lever C^2, to be connected to the gate or signal, the revoluble shaft having the wheel or wheels, the gripping device or devices to engage the wheel or wheels, the lever or levers connected to the gripping device or devices to be operated by a passing train, and connections between the revoluble shaft and the lever C^2, which connections are adapted to become disconnected from the lever at a certain point of the revolution of the shaft, for the purpose set forth.

25. In a setting apparatus, the combination of the revoluble shaft, the gripping device or devices to engage the shaft, the lever or levers to operate the gripping device or devices, said lever or levers being operated by the wheels of a passing train, the detents to limit the rotation of the shaft, said detents being withdrawn from out of engagement by the wheels of a passing train.

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

TOWNSEND W. BURT.

Witnesses:
J. W. GARNER,
JOHN SIGGERS,
E. G. SIGGERS.