

## CONTENTS.



## INIENTIONS PATENTEID.

MOTE-Patents are granted for 15 years. The term of years for which the
Oos have been paid, is given after the date of the patent. No.

## 19,870. Mannfacture of Boots and

 Shoes. (Fabrication des Chaussures.) Thomas Laycock, Northampton, Eng., 1st August, 1884: 5 years. factaim.-lst. The manufacture and use of a water-tight boot or shoe Her described at side or otherwise, to fasten with eyelets, in the mandesplded with a folding gore or tongue, substantially as hereinbefore docribed and a folding gore or tongue, substantially as hereinbeforeing. 2 and bog. 2nd. The manufacture and use of the modified arrangement of of the shoe, hereinbefore described and represented in Figs. 5 to 8 of lasting bootsunying drawing. 3rd. The method, herein described, an obling boots and shoes by driving the tacks, tingles or the like in ${ }^{0}$ or tacksue direction through the upper into the insole, or with tingles cominks of a sufficient length to last the boot or shoe, but without hereing through, substantially in the manner and for the purposes fraving. 4th described and illustrated in Fig. 9o of the accompanying forming. 4th. In a boot or shoe, I claim the enployment of an insole
by the of more than one thickness, and secured to the boot or shoe to fige various thethodsherein described and llustrated by reference bereing. 10 to 20 of the accompanying drawing. ith. The method, Thole or insoled, of securing the middle sole or welt and upper to the Thererented in for boots and shoes, substantially as described arid Role method in figs 10 , 11 and 12 of the accompanying drawing. ©th. the or ingoles of securing the middle sole or welt and upper to the in. and pupposes her boots and shoes, substantially in the manner and for Mring of the accompefore described and represented in Figs. 13, 14 before dexand shoes. substantially. as and for method of manufnctherpingescribed and represented in Fig. 16 of the accompanying one thbofore dese method of manufacturing boots and shoes, as cline thicknees, described, by the employment of an insole of more than apohing the and after lasting taking out the upper thickness and tiaper thickne lasting tacks, tingles or the like, and then replacing the reprin the mas (or substi uting a similar one) of the insole. substanimpronted in Figs. 17 and 18 of the accompanying drawing. !th. The
eatrovement cuttingernent in the manufacture of boots and shoes, consisting in
inidd out, or middg out, or removing a portion of the middle sole, cond anfter the
the leg sole has been screwed, sewn, pegged or rivetted, taking out stansting has been serewed, sewn, pegged or rivetted, taking out bouts or as hereinber the like, and then replacing the part cut, submatenly, the the cutting away of the middle sole so as to leave a fore dial, substut-sway part being filled in with felt or other suitable ing described antinlly in the manner and for the purposes hereinbehes drawinged and represented in Figs. 19 and 20 of the accompany$m^{\text {man sent of }}$ a boot or shoe to the sole by means of acrews, in the $\mathbf{N}_{0}$ adu for the purposes hereinhetore described.

19,871 . Tricycle and like Velocipedes.

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Claim, Settle, Coventry, Fing., lst August, 1384 : 5 years.
Whing in tricycles or like velocipedes, having parallel or main
othel, Witheels, the combination of a worm or worms carried by one a worm-wheel carried by a driving-shaft to which the
is fod (or the alternative arrangement of worm or worms
carried by the driving-shaft, with a worm-wheel carried by the loose driving-wheel) so that both wheels shall run at the same speed when the velocipede is travelling straight (the said gear forming a lock), and, when travelling in a curve or circle, the said worm-gear allowing the loose wheel to run at different speed to the fixed wheel, substantially as described.

## No. 19,872. Antomatic Door Closer. <br> (Fermeture Automatique de Porte.)

## William A. Holwell, Quebec, Que., 1st August, 1884 ; 5 years.

Claim.-1st. In a device for closing doors, \&c., a suitably supported shaftior bar, in combination with a weighted travelling carrier, working on said shaft and connecting with the door, as set forth. 2nd. In a device for closing doors, \&c., a suitably supported shaft or bar, in combination with acarrier travelling on sad shaft and connecting with the door, and a weighted lever pivoted to the carrier, as set forth. 3rd. In a device for closing doors, a suitably supported shait or bar, in combination with a carrier travelling on the shaft and connecting with the door, and a weighted lever pivoted to the carrier and provided with a roller adapted to enter a recess $m$ in the shaft, as set forth. 4th. In a device for closing doors, a suitably supported shaft or har provided with a bevelled or chamfered recess $m$, in combination with a carrier travelling in the shaft and provided with rollers $p$, a cord or chain connecting the carrier with the door, a lever pivoted to the carrier and provided at one end with a roller and an adjustable weight, as set forth. 5th. In a device for closing doors, the bar or shaft fitted at its upper end in a block B and provided with a bevelled or chamfered recess $m$, in combination with a carrier encompassing and travelling on the shaft, a cord connecting the carrier with tbe door, a lever pivoted to an extension of the carrier and provided ut one end with a roller $A$, and an adjustable weight connected to the lever, as set forth. Gth. In a device for closing doors, a suitably supported shaft or bar, in combination with a carrier travelling on the same and connected with the door, a lever pivoted to the carrier, a sliding sleeve arranged to be adjusted on said lever by means of suitable binding screws, and a weight connected to the sleeve, as set forth.

## No. 19,873. Hay Carrier. (Monte-Foin.)

Wentworth G. Ricker, Rochester, N, Y., U. S., 1st August, 1884; 5
years.
Claim.-1st. The combination, with the travelling carriage and rope of a hav-carrier, of the pulleys C , Cr and the binding palley $D$, substantially as and for the purposes set forth. 2nd. The combination, with the travelling carriage qud rope of a hay-carrier, of the pulleys C, Ci, and a movable clamping device located botween the pulleys and connected to the rope, substantially as and for the purposes sot forth. Brd. The combination, with the travelling carriage and rope of a hay-carrier, of the pulleys $\mathrm{C}, \mathrm{Cr}, \mathrm{a}$ movable clamping device located between the pulleys and connected with the rope and the adjusting lever F , substantially as and for the purposes set forth. 4th. The combination, with the travelling carriage and rope of a haycarrier, of the pulley $\mathbb{C}$ provided with suitable ratchet-teeth, pulloy Cr, binding pulley l) and dog (i, substantially as and for the purposes sot forth. 5th. The combination, with the travelling carriage and rope of a hay-carrier, of the pulleys C , Cr provided with suitable ratchet teeth, intermediate clamping device $b$ and dogs $G$, Gi, substantially as and for the burposes set forth. 6th. The combination, with
the travelling carriage of a hay-carrier. of the track-beam $A$ und the ravelhag carriage of a hay-carrier. of the track-beam a and twon, with the dratt-rope E E provided with ferrule $r$ having shank ar and buttom "i, of the detachable hook J having recess $f$ and slot $h 1$, substantially as and for the purposes set forth. Xth. The combination, with the draft-rope E, of the detachable hook J provided with riug $\cdot \mathrm{r}$, substantially as and for the purnoses set forth. 9th. The combination, with the travelling carringe of a hay-earrier, of the pulleys $\mathrm{C}, \mathrm{Ci}^{2}$, binding pulley D and draft-rope E , each end of said draft-rope being provided with devices for detachably connecting it with the binding pulley thereby adapting the carrier to travel in either direction, substantially as and for the purposes set forth. 10th. The combination, with the return or other ropes of a hay-carrier, of the removable track-hook $K$ provided with ring $i$, substantially as
and for the purposes set forth. 11th. The combination, with the tra-

