

(No Model.)

R. M. AUGHENBAUGH & G. E. RUFFLEY.

MAGAZINE FIRE ARM.

No. 399,464.

Patented Mar. 12, 1889.

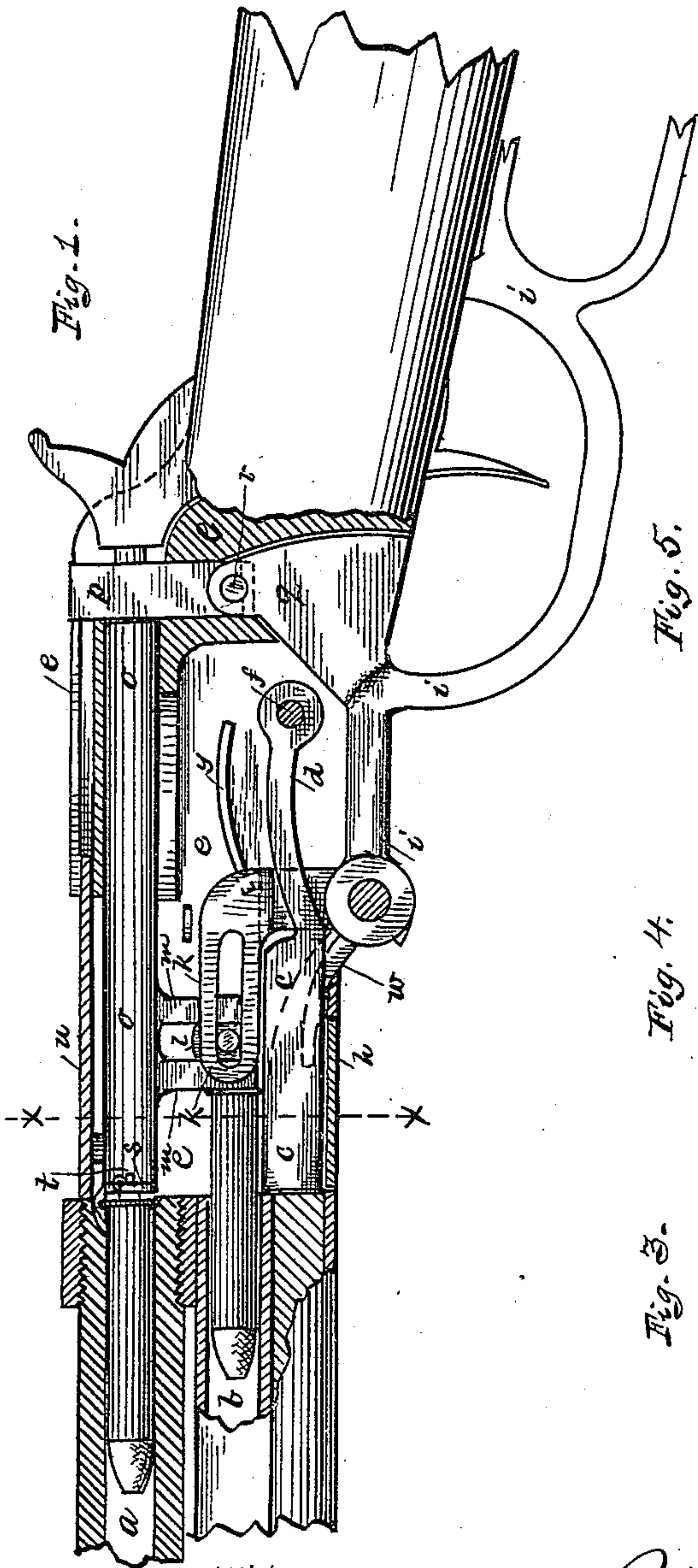


Fig. 1.

Fig. 5.

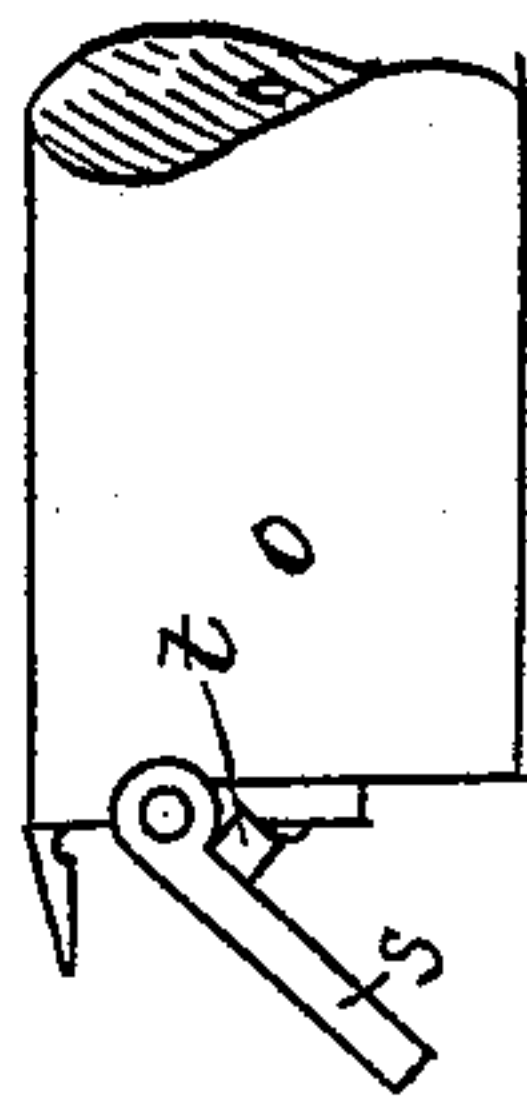


Fig. 4.

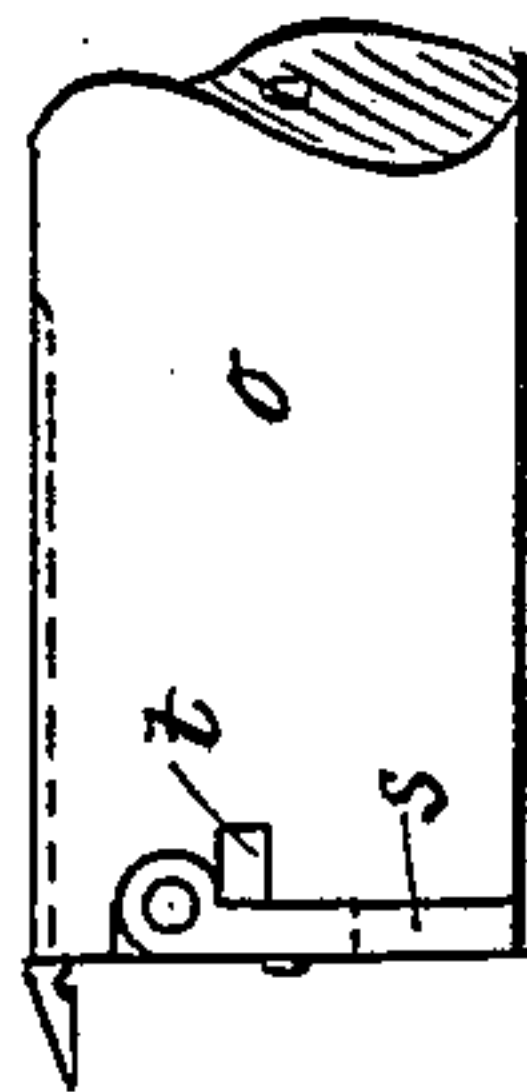


Fig. 3.

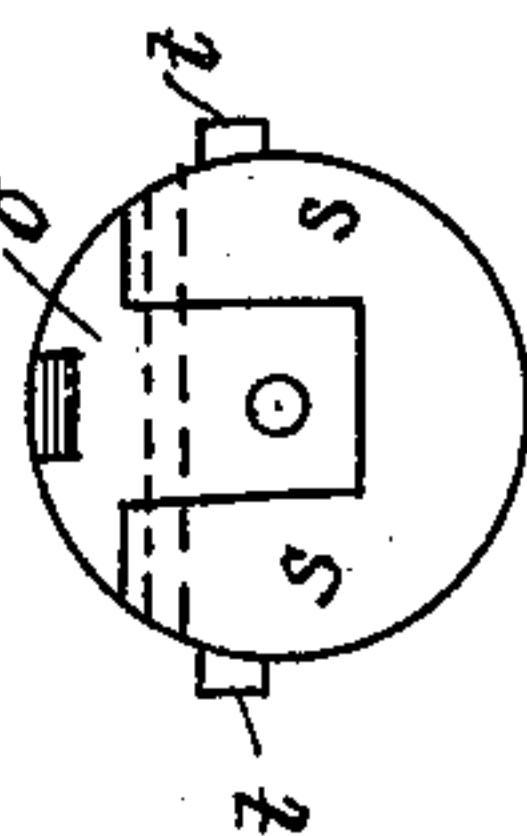
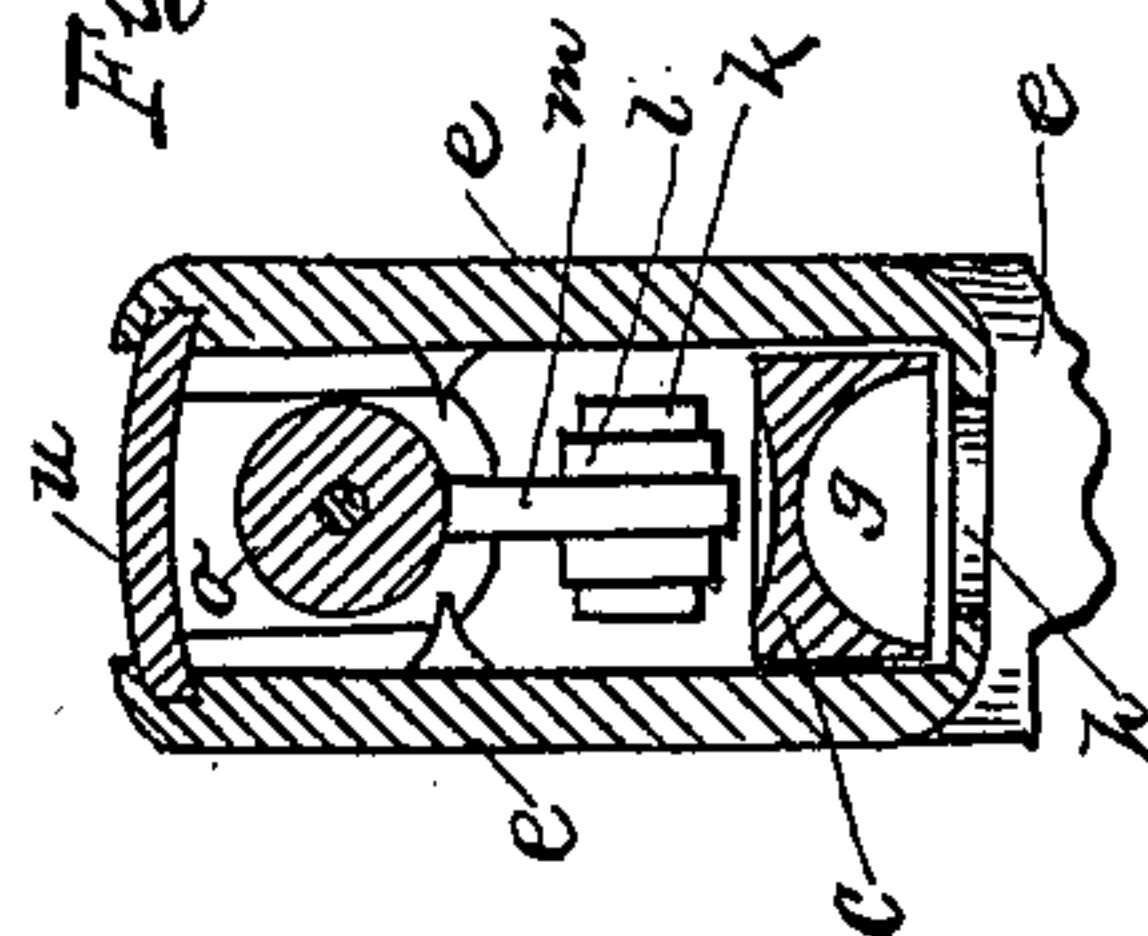


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 399,464, dated March 12, 1889.

Application filed May 29, 1888. Serial No. 275,527. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT M. AUGHEN-  
BAUGH, of Beaver, in the county of Beaver,  
and GEORGE E. RUFFLEY, of Glenfield, in the  
5 county of Allegheny, and State of Pennsylva-  
nia, both citizens of the United States, have  
invented certain new and useful Improve-  
ments in Magazine Fire-Arms; and we do here-  
by declare the following to be a full, clear, and  
10 exact description of the invention, such as  
will enable others skilled in the art to which  
it pertains to make and use the same, ref-  
erence being had to the accompanying draw-  
ings, which form a part of this specification.

15 Our invention relates to an improvement in  
magazine fire-arms, the object being to pro-  
vide a fire-arm of simple construction that  
will be safe, reliable, and accurate in loading  
and extracting the empty shell; and with these  
20 ends in view my invention consists in certain  
details of construction and arrangements of  
parts, as will be fully set forth hereinafter.

In the accompanying drawings, Figure 1 is  
a sectional elevation of our improved fire-arm  
25 constructed in accordance with our invention.  
Fig. 2 is a cross-section of the same on the line  
X X. Fig. 3 is an end view of the breech-bolt,  
showing the position of the ejector. Fig. 4 is  
a side elevation of the same. Fig. 5 is a side  
30 elevation of the breech-bolt, showing the move-  
ment of the ejector.

To put our invention into practice with a  
magazine fire-arm consisting of the barrel *a*,  
the magazine *b*, and other well-known parts,  
35 we provide a carrying-block, *c*, consisting of  
a slightly-recessed block having two arms, *d*,  
projecting toward the rear and attached to  
the frame *e* by a suitable pin, *f*. This block  
*c* serves to receive the cartridge from the maga-  
40 zine *b* and convey the same upward to the  
breech of the barrel *a*. On the under side of  
this carrying-block *c* is formed a deep groove, *g*,  
whereby the cartridges may be introduced into  
the magazine *b* by slightly elevating the block  
45 *c* and pushing the cartridges through an open-  
ing covered by a spring-hinged door, *h*, on the  
under side of the frame *e*. Attached to the  
operating-lever *i* are two slotted arms, *k*, which  
are bent at a right angle in order to clear the  
50 rear end of the carrying-block *c*. These arms  
*k* operate a sliding piece, *l*, placed between

two downwardly-projecting pieces, *m*, rigidly  
secured to the breech-bolt *o*. At the rear of  
the breech-bolt *o* is a vertically-sliding breech-  
bolt locking-block, *p*, actuated by a fan-shaped 55  
plate, *q*, attached to the operating-lever *i*,  
this plate *q* being loosely attached to the  
breech-bolt locking-block *p* by small pins *r* in  
a recess formed in the end of the block *p*,  
which detach themselves when by the move- 60  
ment of the lever the top surface of the breech-  
bolt locking-block is brought below the lower  
edge of the breech-bolt *o*. At the forward  
end of the breech-bolt *o* we arrange an ejector  
consisting of a hinged piece, *s*, provided with 65  
two lugs, *t*, which strike projections formed  
on the inner side walls of the frame *e* when  
the breech-bolt *o* has reached the end of its  
backward movement, at which time the empty  
shell will be thrown out of the opening in the 70  
top of the frame *e*. This last-mentioned open-  
ing is covered by a sliding lid, *u*, attached to  
the forward end of the breech-bolt *o*, which  
cover *u* moves in grooves formed in the frame  
*e* and serves as a support to the forward end 75  
of the breech-bolt *o*.

The carrying-block *c* is raised or elevated  
from its position in which it receives the car-  
tridge from the magazine *b* to the breech of  
the barrel *a* by a short arm, *w*, which is se- 80  
cured to the front end of the lever *i*, and is  
carried or inclined forward and upward, as  
indicated in full and dotted lines in Fig. 1, to  
bear against the lower side of the carrying-  
block when the lever is raised. 85

In operation a cartridge from the magazine  
*b* is pushed into the carrying-block *c*. The  
operating-lever *i* is moved forward, which ac-  
tion, by means of the plate *q*, removes the  
breech-bolt locking-block *p* from behind the 90  
breech-bolt *o* and detaches itself therefrom.  
The lever *i*, still moving forward, commences  
to move the breech-bolt *o* toward the rear, the  
sliding block *l*, together with the slots in the  
arms *k*, allowing the breech-bolt locking-block 95  
*p* time to move out of the way before any  
pressure is brought against the breech-bolt *o*.  
By this time the projection or short lever *w*  
comes in contact with the carrying-block *c*  
and moves the same upward, bringing the 100  
point of the cartridge to the breech of the bar-  
rel *a*. By a reverse or backward movement



of the lever *i* the breech-bolt *o* is first moved forward, which drives the shell into position in the barrel *a*. The carrying-block is lowered and immediately receives another cartridge from the magazine *b*. At the latter part of the movement of the lever *i* the vertically-moving breech-bolt locking-block *p* is moved upward behind the breech-bolt *o*. When the extractor has withdrawn the empty shell from the barrel *a*, the ejector, by striking suitably-placed projections, moves quickly and occupies the position shown at Fig. 5 on the drawings, which movement ejects the empty shell from the gun.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a magazine fire-arm, the combination of an endwise-movable breech-bolt having the parallel slotted arms *m* depending therefrom near its front end, a pivoted lever, *i*, the carrying-block *c*, having the rearward-extending arms *d* pivoted at a point in rear of the fulcrum of the lever, the horizontal slotted levers *k*, arranged above the carrying-block when the latter is in position to receive a cartridge from the magazine, and having the depending vertical arms at their rear ends, which

are secured to the lever *i*, a vertically-movable block, *l*, fitted in the parallel vertical slots of the arms *m*, and having pins fitted in the horizontal slots of the levers *k*, and an arm, *w*, carried by the lever, for the purpose of raising the carrying-block *c*, substantially as and for the purpose described.

2. The combination of an endwise-movable breech-bolt, an ejector-plate, *s*, pivoted at its upper edge to the front end of said breech-bolt, and having laterally-extending lugs *t* projecting from opposite sides of said ejector-plate, near the pivot thereof, and fixed lugs on the frame of the gun and arranged on opposite sides of the breech-bolt, in the path of the lugs *t* on the ejector-plate, whereby when the breech-bolt is suddenly drawn rearward the lugs *t* will be suddenly struck by the fixed lugs to raise the ejector-plate forcibly and expel the shell, substantially as described.

In testimony that we claim the foregoing we hereunto affix our signatures.

ROBERT M. AUGHENBAUGH.  
GEORGE E. RUFFLEY.

In presence of—

JNO. GRIPP,  
J. A. CARLINE.