## Traffic Jam Puzzle


a.k.a. Tit-Bits Teaser No. 4

Patented 1928.
(cardboard box and 14 wood pieces, 4 by 4.75 by $1 / 2$ inches;
box graphics are the same except that
the yellow one says "CAN YOU DRIVE THE CAR HOME?", and the white one has "ORIENTAL ARTS CO." label on the box bottom)

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## Directions On the Inside of the Traffic Jam Box Top

The inside of the box lid of the Traffic Jam Puzzle shows 12 starting positions, where the goal is always to get the $2 \times 2$ to the lower right corner.


DIRECTIONS:-Each block represents a car and can be moved in any direction but must not be taken from the box or turned around. Arrange them as shown above and move "MY CAR", between the others, to the lower right hand corner which is "HOME". No. I is the easiest arrangement to solve and can be done with 43 moves while No. 12 is very difficult and requires nearly 300.

## Pat. No. 1683014

In the 1928 Babcock patent, the figures show problems 3 and 4, Claim 1 addresses puzzles of this type, and Claim 3 specifies this particular piece set. Hordern's book says this puzzle was also patented in the U.K. in 1930 (Tit-Bits Teaser No. 4), and presents solutions for the 12 problems of rectilinear (straight-line) moves:

| $43(51)$ | $52(61)$ | $58(67)$ | $60(69)$ |
| :---: | :---: | :---: | :---: |
| $57(64)$ | $73(85)$ | $75(89)$ | $99(115)$ |
| $80(94)$ | $128(150)$ | $132(147)$ | $223(257)$ |

## Traffic Jam Puzzle Solution Sheet, Side 1

## Solution To Traffic Jam Puzzle

$\mathrm{MC}-\mathrm{d} ; \mathrm{B}-1 ; \mathrm{D}-\mathrm{ul} ; \mathrm{F}-\mathrm{u} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{d} ; \mathrm{D}-\mathrm{ld} ; \mathrm{F}-1 ; \mathrm{N}-\mathrm{l} ; \mathrm{C}-\mathrm{l} ; \mathrm{H}-\mathrm{u}$ $\mathrm{O}-\mathrm{u} ; \mathrm{R}-\mathrm{r} ; \mathrm{P}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{N}-\mathrm{d} ; \mathrm{F}-\mathrm{rd} ; \mathrm{C}-\mathrm{l} ; \mathrm{H}-\mathrm{l} ; \mathrm{O}-\mathrm{u} ; \mathrm{P}-\mathrm{ur}$, $\mathrm{MC}-\mathrm{r} ; \mathrm{N}-\mathrm{ru} ; \mathrm{B}-\mathrm{r} ; \mathrm{M}-\mathrm{u} ; \mathrm{I}-\mathrm{l} ; \mathrm{S}-\mathrm{l} ; \mathrm{A}-\mathrm{I} ; \mathrm{R} \mathrm{d} ; \mathrm{P}-\mathrm{d} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{ru}$; $S-u ; A-1 ; P-l d ; M C-d ; B-r ; N-r ; S-u ; A-u ; P-1 ; R-1 ; M C-d$
(2) $\mathrm{R}-\mathrm{ru} ; \mathrm{O}-\mathrm{u} ; \mathrm{H}-\mathrm{r} ; \mathrm{C}-\mathrm{r} ; \mathrm{MC}-\mathrm{d} ; \mathrm{B}-1 ; \mathrm{D}-1 ; \mathrm{F}-1 ; \mathrm{R}-\mathrm{l} ; \mathrm{O}-\mathrm{u} ; \mathrm{H}-\mathrm{u}$; $\mathrm{C}-r ; \mathrm{N}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{d} ; \mathrm{D}-\mathrm{ld} ; \mathrm{F}-1 ; \mathrm{R}-1 ; \mathrm{O}-1 ; \mathrm{H}-\mathrm{u} ; \mathrm{C}-\mathrm{u} ; \mathrm{N}-\mathrm{r}$; $\mathrm{P}-\mathrm{dr} ; \mathrm{MC-r} ; \mathrm{R}-\mathrm{d} ; \mathrm{F}-\mathrm{rd} ; \mathrm{O}-\mathrm{H}-1 ; \mathrm{C}-\mathrm{u} ; \mathrm{P}-\mathrm{ur} ; \mathrm{MC}-\mathrm{r} ; \mathrm{R}-\mathrm{ru}$; $\mathrm{B}-\mathrm{r} ; \mathrm{M}-\mathrm{u} ; \mathrm{I}-\mathrm{l} ; \mathrm{S}-1 ; \mathrm{A}-1 ; \mathrm{N}-\mathrm{d} ; \mathrm{P}-\mathrm{d} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{ru} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-1$; P-ld; MC-d;B-r;R-r;S-u; A-u; P-l; N-l; MC-d

## (3)

$\mathrm{R}-\mathrm{u} ; \mathrm{P}-\mathrm{r} ; \mathrm{O}-\mathrm{r} ; \mathrm{H}-\mathrm{d} ; \mathrm{C}-\mathrm{d} ; \mathrm{F}-1 ; \mathrm{N}-\mathrm{ul} ; \mathrm{S}-1 ; \mathrm{A}-\mathrm{l} ; \mathrm{R}-\mathrm{u} ; \mathrm{P}-\mathrm{ru}: ~$
$\mathrm{O}-\mathrm{H}$ $\mathrm{O}-\mathrm{r} ; \mathrm{H}-\mathrm{r} ; \mathrm{C}-\mathrm{d} ; \mathrm{Ne}-\mathrm{di} ; \mathrm{S}-1 ; \mathrm{A}-1 ; \mathrm{R}-1 \mathrm{~d} ; \mathrm{I}-\mathrm{d} ; \mathrm{M}-\mathrm{r} ; \mathrm{B}-\mathrm{r} ; \mathrm{D}-1$; $\underset{B C-r}{M C} \mathrm{~F}-\mathrm{u} ; \mathrm{N}-\mathrm{u} ; \mathrm{S}-\mathrm{l} ; \mathrm{A}-1 ; \mathrm{D}-\mathrm{d} ; \mathrm{B}-\mathrm{d} ; \mathrm{MC}-\mathrm{r} ; \mathrm{N}-\mathrm{ru} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{l}$; B-ld; MC-d; N-r; F-r; S-u; A-u; B-1 D-1; MC-d; N-dl; M-l;

(4)
$\mathrm{P}-\mathrm{rd} ; \mathrm{H}-\mathrm{r} ; \mathrm{C}-\mathrm{d} ; \mathrm{N}-\mathrm{l} ; \mathrm{F}-\mathrm{l} ; \mathrm{H}-\mathrm{u} ; \mathrm{R}-\mathrm{ur} ; \mathrm{C}-\mathrm{r} ; \mathrm{O}-\mathrm{r} ; \mathrm{A}-\mathrm{r} ; \mathrm{S}-\mathrm{d}$; $N-1 ; F-1 ; H-1 ; D-d l ; B-d ; T r ; M-r ; M C-r ; N-u ; F-l u ; S-u$; A-1; C-i; O $1 ; D-d ; B-d ; I-d ; M-r ; M C-r ; F-r u ; S-u A-u$; $\mathrm{O}-1 ; \mathrm{C}-\mathrm{d} ; \mathrm{H}-\mathrm{d} ; \mathrm{MC} \mathrm{d} ; \mathrm{F}-\mathrm{r} ; \mathrm{N}-\mathrm{r} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{H}-\mathrm{l} ; \mathrm{MC} \mathrm{d} ; \mathrm{F}$ di: $\mathrm{M}-1 ; \mathrm{I}-\mathrm{u} ; \mathrm{B}-\mathrm{ur} ; \mathrm{MC}-\mathrm{r} ; \mathrm{F}-\mathrm{d} ; \mathrm{N}-\mathrm{d} ; \mathrm{M}-1 ; \mathrm{I}-\mathrm{l} ; \mathrm{B}-\mathrm{u} ; \mathrm{R}-\mathrm{u} ; \mathrm{MC}-\mathrm{r} ;$
$\mathrm{F}-\mathrm{ru} ; \mathrm{C}-\mathrm{u} ; \mathrm{D}-\mathrm{P}-\mathrm{M} ; \mathrm{M}-\mathrm{d}$
(5)

 B-r; M-u; I-l; S-l; A-l; D-d; F-d; MC-r; B-ru-S-u; A-l; $\mathrm{F}-\mathrm{ld} ; \mathrm{MC}-\mathrm{d} ; \mathrm{B}-\mathrm{r} ; \mathrm{R}-\mathrm{r} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{F}-1 ; \mathrm{D}-\mathrm{l} ; \mathrm{MC}-\mathrm{d}$
(6)
$\mathrm{R}-\mathrm{r} ; \mathrm{F}-\mathrm{r} ; \mathrm{N}-\mathrm{r} ; \mathrm{P}-\mathrm{u} ; \mathrm{S}-\mathrm{l} ; \mathrm{A}-\mathrm{l} ; \mathrm{R}-\mathrm{d} ; \mathrm{F}-\mathrm{rd} ; \mathrm{N}-\mathrm{r} ; \mathrm{P}-\mathrm{r} ; \mathrm{S}-\mathrm{u}$; $\mathrm{A}-1 ; \mathrm{P}-\mathrm{d} ; \mathrm{N}-\mathrm{ld} ; \mathrm{I}-\mathrm{d} ; \mathrm{M}-\mathrm{r} ; \mathrm{D}-\mathrm{ru} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{O}-\mathrm{r} ; \mathrm{H}-\mathrm{d} ; \mathrm{C}-\mathrm{d}:$
$\mathrm{MC}-\mathrm{d} ; \mathrm{B}-\mathrm{l} ; \mathrm{D}-1 ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{C}-\mathrm{r} ; \mathrm{MC}-\mathrm{d} ; \mathrm{D}-\mathrm{ld} ; \mathrm{S}-1 ; \mathrm{A}-\mathrm{u} ; \mathrm{C}-\mathrm{u}$; O-u; H-r; MC-d; D-dr; B d; S- $1 ; \mathrm{A}-1 ; \mathrm{M}-\mathrm{l} ; \mathrm{I}-\mathrm{u} ; \mathrm{C}-\mathrm{r} ; \mathrm{O}-\mathrm{u}$; $\mathrm{N}-1 ; \mathrm{F}-\mathrm{l} ; \mathrm{P}-\mathrm{u} ; \mathrm{R}-\mathrm{u} ; \mathrm{H}-\mathrm{r} ; \mathrm{N}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{d} ; \mathrm{D}-\mathrm{ld} ; \mathrm{O}-\mathrm{l} ; \mathrm{C}-\mathrm{l}$; $\mathrm{P}-\mathrm{u} ; \mathrm{R}-\mathrm{u} ; \mathrm{H}-\mathrm{u} ; \mathrm{N}-\mathrm{r} ; \mathrm{F}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{D}-\mathrm{rd} ; \mathrm{O}-\mathrm{d} ; \mathrm{C}-\mathrm{l} ; \mathrm{P}-\mathrm{l} ; \mathrm{R}-\mathrm{i} ;$ $\mathrm{H}-\mathrm{u} ; \mathrm{F}-\mathrm{ur} ; \mathrm{MC}-\mathrm{r} ; \mathrm{P}-\mathrm{d} ; \mathrm{R}-\mathrm{lu} ; \mathrm{H}-\mathrm{l} ; \mathrm{F}-\mathrm{ul} ; \mathrm{N}-\mathrm{u} ; \mathrm{MC}-\mathrm{r}$
(7)

R-ru; P-r;N-r;M-u; I-u; O-r; I-d; C-d; MC-d; B- $1 ; \mathrm{D}-1$; M-1; I-u; C-r; MC d; D-dl; M-1;I-u; C-u;O-u; H-r; MC-d; $\mathrm{D}-\mathrm{dr} ; \mathrm{B}-\mathrm{d} ; \mathrm{M}-1 ; \mathrm{I}-1 ; \mathrm{N}-\mathrm{lu} ; \mathrm{P}-1 ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{H}-\mathrm{r} ; \mathrm{O}-\mathrm{d} ; \mathrm{C}-\mathrm{d}$; $\mathrm{P}-\mathrm{dl} ; \mathrm{N}-\mathrm{d} ; \mathrm{F}-\mathrm{ld} ; \mathrm{R}-\mathrm{l} ; \mathrm{S}-\mathrm{u} ; \mathrm{A}-\mathrm{u} ; \mathrm{C}-\mathrm{r} ; \mathrm{N}-\mathrm{di} ; \mathrm{F}-\mathrm{d} ; \mathrm{R}-\mathrm{d} ; \mathrm{S}-\mathrm{l}$; A-u; C-u; $\mathrm{H}-\mathrm{u} ; \mathrm{O}-\mathrm{r} ; \mathrm{N}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{d} ; \mathrm{D}-\mathrm{ld} ; \mathrm{P}-\mathrm{l} ; \mathrm{R}-\mathrm{l} ; \mathrm{C}-\mathrm{l}:$ $\mathrm{H}-\mathrm{u} ; \mathrm{O}-\mathrm{u}: \mathrm{N}-\mathrm{r} ; \mathrm{F}-\mathrm{dr} ; \mathrm{MC}-\mathrm{r} ; \mathrm{P}-\mathrm{d} ; \mathrm{P}-\mathrm{rd} ; \mathrm{C}-\mathrm{l} ; \mathrm{H}-\mathrm{l} ; \mathrm{O}-\mathrm{u} ; \mathrm{F}-\mathrm{ur} ;$ $\mathrm{MC}-\mathrm{r} ; \mathrm{P}-\mathrm{rd} ; \mathrm{D}-\mathrm{r} ; \mathrm{C}-\mathrm{d} ; \mathrm{H}-\mathrm{l} ; \mathrm{O}-\mathrm{l} ; \mathrm{F}-\mathrm{ul} ; \mathrm{N}-\mathrm{u} ; \mathrm{MC}-\mathrm{r}$
(8)
$\mathrm{R}-\mathrm{d} ; \mathrm{P}-\mathrm{d} ; \mathrm{F}-\mathrm{r} ; \mathrm{I}-\mathrm{r} ; \mathrm{M}-\mathrm{d} ; \mathrm{B}-\mathrm{l} ; \mathrm{D}-\mathrm{l} ; \mathrm{N}-\mathrm{ul} ; \mathrm{F}-\mathrm{u} ; \mathrm{I}-\mathrm{r} ; \mathrm{M}-\mathrm{r}$; B-d; D-ld; N-l; M-u; I-l; P-u; R-u; A-r; S-r; B-d; D-d; $\mathrm{N}-\mathrm{d} ; \mathrm{M}-\mathrm{l} ; \mathrm{I}-\mathrm{u} ; \mathrm{N}-\mathrm{r} ; \mathrm{C}-\mathrm{r} ; \mathrm{H}-\mathrm{u} ; \mathrm{O}-\mathrm{u} ; \mathrm{B}-1 ; \mathrm{D}-\mathrm{d} ; \mathrm{S}-1 ; \mathrm{A}-\mathrm{l} ;$
$\mathrm{R}-\mathrm{d} ; \mathrm{N}-\mathrm{d} ; \mathrm{C}-\mathrm{r} ; \mathrm{H}-\mathrm{r} ; \mathrm{O}-\mathrm{u} ; \mathrm{D}-\mathrm{ul} ; \mathrm{S}-\mathrm{l} ; \mathrm{A}-\mathrm{l} ; \mathrm{N}-\mathrm{ld} ; \mathrm{C}-\mathrm{d} ; \mathrm{H}-\mathrm{r}:$ $\mathrm{O}-1 ; \mathrm{D}-\mathrm{ur} ; \mathrm{B}-\mathrm{u} ; \mathrm{S}-1 ; \mathrm{A}-1 ; \mathrm{N}-\mathrm{lu} ; \mathrm{R}-1 ; \mathrm{C}-\mathrm{d} ; \mathrm{H}-\mathrm{d} ; \mathrm{P}-\mathrm{dl} ; \mathrm{F}-\mathrm{d}$ : $\mathrm{I}-\mathrm{r} ; \mathrm{M}-\mathrm{r} ; \mathrm{MC}-\mathrm{r} ; \mathrm{B}-\mathrm{u} ; \mathrm{D}-\mathrm{lu} ; \mathrm{O}-1 ; \mathrm{P}-1 ; \mathrm{F}-\mathrm{l} ; \mathrm{I}-\mathrm{d} ; \mathrm{M}-\mathrm{r} ; \mathrm{MC}-\mathrm{r} ;$ $\mathrm{D}-\mathrm{ru} ; \mathrm{O}-\mathrm{u} ; \mathrm{P}-\mathrm{l} ; \mathrm{F}-\mathrm{l} ; \mathrm{MC}-\mathrm{d} ; \mathrm{D}-\mathrm{r} ; \mathrm{B}-\mathrm{r} ; \mathrm{O}-\mathrm{u} ; \mathrm{P}-\mathrm{u} ; \mathrm{F}-\mathrm{u} ; \mathrm{S}-\mathrm{u}$; A-1:N-ld; MC-d; D-dl; M-l; I-u; I-u; C-u; R-r; N-r; MC-d: $\mathrm{H}-\mathrm{l} ; \mathrm{C}-\mathrm{u} ; \mathrm{N}-\mathrm{ur} ; \mathrm{MC}-\mathrm{r} ; \mathrm{S}-\mathrm{r} ; \mathrm{A}-\mathrm{d} ; \mathrm{H}-\mathrm{l} ; \mathrm{C}-\mathrm{l} ; \mathrm{N}-\mathrm{ul} \mathrm{R-u;} \mathrm{MC-r}$

## Traffic Jam Puzzle Solution Sheet, Side 2



Tit-Bits Teaser No. 4 Version Of The Traffic Jam Puzzle


Tit-Bits Teaser No. 4, George Newnes Ltd., London, 1931.
(cardboard box and 14 wood pieces, 4 by 4.75 by $1 / 2$ inches; text at top of box top says "COMPETITION CLOSES FEB. 28th 1931"; text at bottom of box top says "MADE IN U.S. A.")

## Tit-Bits Teaser No. 4 Solution Sheet

Tit-Bits Teaser No. 4 is puzzle number 11 of the Traffic Jam puzzle. Hordern's book gives both a 132 move rectilinear move solution and a 147 move straight-line solution. Here is the 132 move solution that came with the puzzle:

Solution to Teaser No. 4

| $\left\|\begin{array}{c} \ddot{8} \\ \frac{8}{2} \\ \frac{0}{0} \\ \dot{4} \\ \dot{4} \end{array}\right\|$ |  | $\left\lvert\, \begin{gathered} \frac{8}{8} \\ \frac{8}{2} \\ \vdots \\ \dot{3} \\ \dot{4} \end{gathered}\right.$ | $\begin{aligned} & \text { Z } \\ & 0 \\ & 0 \\ & 0 \\ & \text { \% } \\ & 0 \\ & 0 \end{aligned}$ |  |  | $\begin{gathered} \frac{8}{2} \\ \frac{8}{2} \\ \vdots \\ \dot{4} \\ \dot{4} \end{gathered}$ | $\begin{aligned} & \text { g } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \$ \\ & 5 \end{aligned}$ | $\left\|\begin{array}{c} 8 \\ \frac{8}{2} \\ 2 \\ \vdots \\ 0 \\ 4 \\ 4 \end{array}\right\|$ | $\begin{aligned} & \text { प्र } \\ & \text { O } \\ & \text { B } \\ & \text { a } \end{aligned}$ | $\begin{gathered} 8 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ \dot{z} \\ z \end{gathered}$ | $\begin{aligned} & \text { D } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\left\lvert\, \begin{gathered} 0 \\ \frac{0}{3} \\ \frac{1}{c} \\ \dot{c} \\ 2 \\ 2 \end{gathered}\right.$ | $\begin{aligned} & 3 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | L | 6 | D | 14 | U |  | RU | 6 | U |  | 6 LD |  |  |
| 4 | L | 5 | D | 11 | L | 12 | D | 12 | R | 1 | D |  | R |
| 3 | L | 7 | L | 5 | L | 14 | I. | 11 | D | 7 | DL | 10 | R |
| 8 | U | 8 | D | 6 | D | 7 | U | 6 | LD | 2 | 2 L | 9 | D |
| 7 | R | 3 | R | 13 | D | 12 | R | 3 | L | 8 | U | 5 | D |
| 11 | UR | 4 | RU |  | R | 10 | R | 8 | D | 13 | U | 4 | DL |
| 14 | U | 7 | U | 8 | U | 9 | D | 2 | R | 12 | 2 U | 2 | I |
| 12 | L | 8 | L | 5 | U | 14 | L | 1 | R | 11 | R | 8 | L |
| 11. | D | 13 | U | 11. | R |  | L | , | RU | 6 | R | 13 | L |
| 14 | RD | 5 | R | 14 | DR | 5 | L | 5 | U | 1 | D | 12 | U |
| 6 | R | 6 | U | 7 | D | 4 | DL | 4 | L | 7 | DR | 11 | U |
| 5 | R | 11 | L | 12 | D | 3 | D | , | L | 3 | 3 RD | 1 | R |
| 9 | U | 5 | D | 2 | L | 8 | R | 1 | D | 4 | 4 R |  |  |
| 10 | L. | 6 | R | 8 | U | 2 | R | 7 | R | 5 | 5 D |  |  |
| 12 | L | 8 | D | 5 | U | 1 | R | 14 | R | 14 | 4 L |  |  |
| 14 | LD | 7 | D | 11 | U | 14 | U | 5 | U | 4 | 4 UL |  |  |
| 6 | DL | 4 | D | 6 | L | 7 | LU | , | U | 2 | 2 L |  |  |
|  | R | 2 | R | 13 | D | 5 | 5. | 3 | U | 8 | 8 L |  |  |
| 12 | U | 12 | U | 5 | R | 4 | L | 9 | U | 13 | 3 U |  |  |
| 14 | L | 7 | L | 14 | U | 11 | UL | 0 | L | 12 | 2 R |  |  |

## 132 MOVES.

"R" for Right, "L" for Left, "D" for Down, "U" for Up, or a combination of these letters for double moves such as "LD" Left-Down, "UR" Up-Right, etc.
George Newnes, Ltd., 8-11, Southampton St., Strand. London. W.C. 2

## The Dingbat Puzzle

Hordern's book credits this puzzle as manufactured by Dr Hex Association, USA, 1930s. It uses the same piece set as Traffic Jam (where one of the 2 unit pieces is oriented vertically), also uses a 5 by 6 unit tray, and has the same goal of moving the $2 \times 2$ piece to the lower right corner. Here is the starting position; the upper left corner is called "Detroit" and the lower right corner is called "Washington":


Further Reading
Babcock Patent, from: www.uspto.gov - patent no. 1,683,014

