

Enclosure 1 in 1 of No. 4.

RESULT of TESTING AXLES with a Ton WEIGHT falling on them.

1. Numbers of Axles Tested.	2. Brand on Axle.	3. Distance between Supports.	4. Height of Fall.	5. Number of Fall.	6. Deflection.	7. Character of Fracture.
A. 1	Staffordshire Wheel and Axle Company	Broke in ship's hold	Coarsely crystalline, with flaw.
B. 2	"	{ 4 feet 3 inches ...	1 foot	1st	$\frac{3}{16}$ inch	Coarsely crystalline, white
	"	" " " " " "	"	2nd	$\frac{5}{8}$ inch	
	"	" " " " " "	"	3rd	$\frac{7}{8}$ inch, total	
	"	" " " " " "	1 foot 10 inches	4th	$1\frac{1}{4}$ inch, total	
	"	" " " " " "	"	5th	$1\frac{3}{8}$ inch, total	
	"	" " " " " "	1 foot 10 inches	6th	Broke	
C. 3	"	{ 5 feet ...	1 foot 4 inches	1st	$\frac{3}{8}$ inch	Coarsely crystalline, white.
	"	" " " " " "	"	2nd	$1\frac{1}{16}$ inch, total	
	"	" " " " " "	"	3rd	Broke	
D. 4	"	{ 5 feet ...	1 foot 4 inches	1st	$\frac{3}{8}$ inch	Coarsely crystalline, white.
	"	" " " " " "	"	2nd	$1\frac{1}{16}$ inch, total	
	"	" " " " " "	"	3rd	Broke	
E. 5	"	{ 5 feet ...	1 foot 5 inches	1st	$\frac{1}{2}$ inch	Crystalline, white (coarse).
	"	" " " " " "	"	2nd	Broke	
F. 1	Midland Iron Company	4 feet 3 inches	1 foot 10 inches	1st	Broke	Coarsely crystalline, white.
G. 2	"	{ 5 feet ...	1 foot 4 inches	1st	$\frac{1}{16}$ inch	
	"	" " " " " "	"	2nd	$\frac{1}{16}$ inch, total	
	"	" " " " " "	"	3rd	$1\frac{1}{4}$ inch, total	
	"	" " " " " "	"	1st	Returned to $\frac{1}{16}$ inch	
	"	" " " " " "	"	2nd	Returned to $\frac{1}{16}$ inch	
	"	" " " " " "	2 feet	3rd	$\frac{1}{16}$ inch below straight	
	"	" " " " " "	3 feet	4th	$1\frac{1}{8}$ inch below straight	
	"	" " " " " "	4 feet	5th	Broke	
H. 3	"	{ 5 feet ...	1 foot 5 inches	1st	$\frac{1}{4}$ inch	Fibrous, with smaller crystals, grey and white mixed
	"	" " " " " "	"	2nd	$\frac{3}{16}$ inch, total	
	"	" " " " " "	"	3rd	$1\frac{1}{4}$ inch, total	
	"	" " " " " "	"	1st	Returned to $\frac{1}{4}$ inch	
	"	" " " " " "	"	2nd	Returned to $\frac{1}{4}$ inch	
	"	" " " " " "	2 feet	3rd	Broke	
I. 1	Lancaster Wagon Company	{ 5 feet ...	1 foot 4 inches	1st	$\frac{1}{2}$ inch	Fibrous, with smaller crystals, grey and white mixed flaw.
	"	" " " " " "	"	2nd	$\frac{7}{16}$ inch, total	
	"	" " " " " "	"	3rd	$1\frac{1}{4}$ inch, total	
	"	" " " " " "	"	1st	Returned to $\frac{1}{16}$ inch	
	"	" " " " " "	"	2nd	Returned to $\frac{1}{16}$ inch	
	"	" " " " " "	1 foot 5 inches	3rd	$\frac{1}{16}$ inch below straight	
	"	" " " " " "	2 feet	4th	$1\frac{1}{8}$ inch below straight	
	"	" " " " " "	3 feet	5th	$2\frac{1}{8}$ inches below straight	
	"	" " " " " "	4 feet	6th	$3\frac{3}{8}$ inches below straight	
	"	" " " " " "	5 feet	7th	$4\frac{1}{8}$ inches below straight	
	"	" " " " " "	4 feet	1st	Returned to $3\frac{3}{8}$ inches	
	"	" " " " " "	5 feet	2nd	Broke	

Fibrous, with small crystals, grey and white mixed.