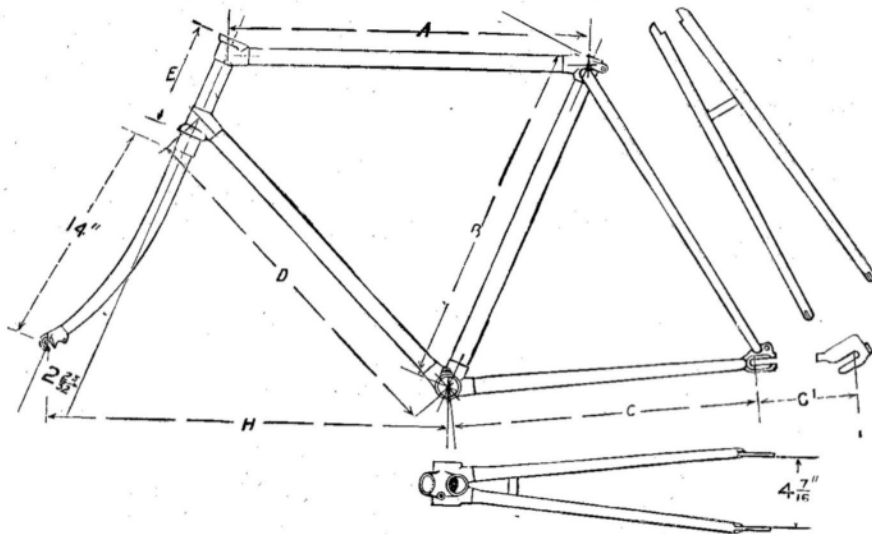


CHATER-LEA

Fittings
for
Cycles
Tandems
Carrier
Tricycles

1931

CHATER-LEA CYCLE FITTINGS



No. 2a Gent's Frame—Small Tube Set

Wheel Base, 43". Bracket Height, 11" with 26" Wheels.

- 176 Top Head Lug: 68° for $\frac{1}{8}$ " Ball Race.
- 1015 Bottom Head Lug: 66° for $\frac{1}{8}$ " Ball Race.
- 917 Bottom Bracket Shell.
- 714 Seat Lug: 68°.
- 1074 Chain Strut.

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 22" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter and Gauges of Tubes.
A	Top Tube (double butted)	22 $\frac{3}{16}$ "	21 $\frac{7}{16}$ "	$\frac{7}{8}$ " \times 18—20
B	Seat Tube (single butted)	22"	21 $\frac{9}{16}$ "	1" \times 19—22
C	Chain Strut with rear opening Fork End	18 $\frac{3}{4}$ "	17 $\frac{1}{2}$ "	$\frac{7}{8}$ " diameter round to oval.
C1	Ditto with forward opening Fork End	19 $\frac{7}{16}$ "	16 $\frac{7}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
D	Down Tube (double butted)	22 $\frac{1}{2}$ "	21 $\frac{11}{16}$ "	1" \times 18—20
E	Head Outside Tube	6 $\frac{1}{2}$ "	6 $\frac{1}{16}$ "	1 $\frac{1}{8}$ " \times 22
H	Distance between Front Wheel and Bracket	24 $\frac{1}{4}$ "	—	—
—	Seat Stays	—	19 $\frac{3}{16}$ "	Tapered.
—	Distance between Front Fork Ends	3 $\frac{7}{16}$ "	—	—

When building a Frame with a Seat Tube of different length, Dimension E requires altering by a similar amount

FULL SIZE WORKING PRINTS will be sent upon application.

CHATER-LEA MFG. CO., LTD. (Estd. 1890), New Icknield Way, Letchworth, Herts, England.

No. 3 Gent's Frame

Wheel Base 42". Bracket Height, 10 $\frac{3}{8}$ " with 26" Wheels.

1010	....	Top Head Lug: 68° for $\frac{1}{8}$ " Ball Race.
1009-2	....	Bottom Head Lug: 64 $\frac{1}{2}$ ° for $\frac{1}{8}$ " Ball Race.
917-3	....	Bottom Bracket Shell.
682-1	....	Seat Lug: 68°
1074-2	....	Chain Strut.

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 22" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter and Gauges of Tubes.
A	Top Tube (double butted)	22 $\frac{3}{16}$ "	21 $\frac{7}{16}$ "	1" × 19 — 22
B	Seat Tube (single butted)	22"	21 $\frac{9}{16}$ "	1 $\frac{1}{8}$ " × 19 — 22
C	Chain Strut with rear opening Fork End	18"	16 $\frac{1}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
C1	Ditto with forward opening Fork End	18 $\frac{11}{16}$ "	16 $\frac{1}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
D	Down Tube (double butted)	22 $\frac{1}{4}$ "	21 $\frac{15}{16}$ "	1 $\frac{1}{8}$ " × 19 — 22
E	Head Outside Tube	6"	5 $\frac{9}{16}$ "	1 $\frac{1}{4}$ " × 22
H	Distance between Front Wheel and Bracket	24 $\frac{1}{8}$ "	—	—
—	Seat Stays	—	18 $\frac{3}{8}$ "	Tapered.
—	Distance between Front Forks End	3 $\frac{7}{16}$ "	—	—

When building a Frame with a Seat Tube of different length, Dimension E requires altering by a similar amount.

No. 5 Gent's Frame

Wheel Base, 43 $\frac{1}{2}$ ". Bracket Height, 10 $\frac{1}{2}$ " with 26" Wheels.

1010	....	Top Head Lug: 68° for $\frac{1}{8}$ " Ball Race.
1009	....	Bottom Head Lug: 66° for $\frac{1}{8}$ " Ball Race.
917-2	....	Bottom Bracket Shell.
682-1	....	Seat Lug: 68°
1074	....	Chain Struts.

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 21" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter and Gauges of Tubes.
A	Top Tube (double butted)	22 $\frac{13}{16}$ "	22 $\frac{1}{16}$ "	1" × 19 — 22
B	Seat Tube (single butted)	21"	20 $\frac{9}{16}$ "	1 $\frac{1}{8}$ " × 19 — 22
C	Chain Strut with rear opening Fork End	18 $\frac{3}{4}$ "	17 $\frac{1}{4}$ "	$\frac{7}{8}$ " diameter round to oval.
C1	Ditto with forward opening Fork End	19 $\frac{7}{16}$ "	16 $\frac{7}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
D	Down Tube (double butted)	23 $\frac{3}{16}$ "	22 $\frac{8}{8}$ "	1 $\frac{1}{8}$ " × 19 — 22
E	Head Outside Tube	5"	4 $\frac{9}{16}$ "	1 $\frac{1}{4}$ " × 22
H	Distance between Front Wheel and Bracket	24 $\frac{7}{8}$ "	—	—
—	Seat Stays	—	18 $\frac{3}{16}$ "	Tapered.
—	Distance between Front Fork Ends	3 $\frac{7}{16}$ "	—	—

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CYCLE FITTINGS *(continued)*

The No. 5 Frame can also be built to take $\frac{3}{16}$ " Head Races.

The following parts should then be substituted:—

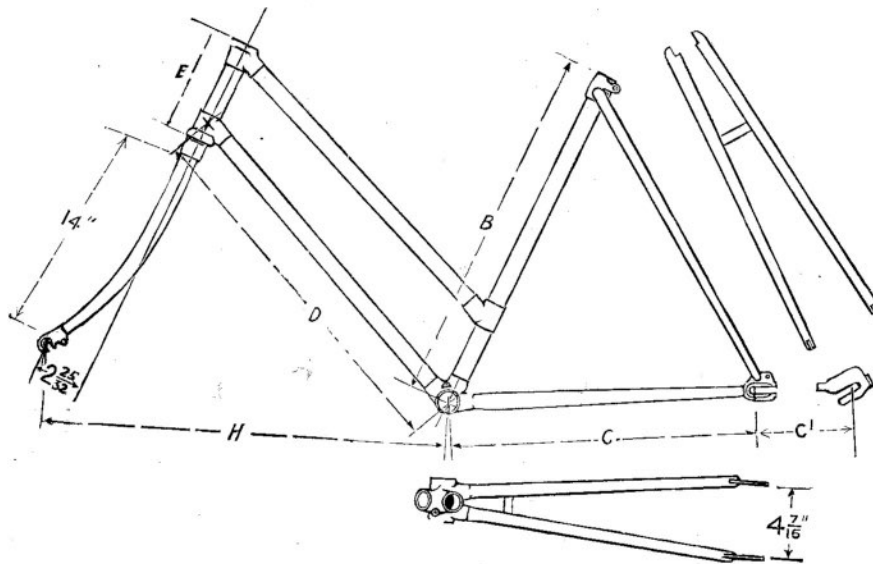
- 1413 Top Head Lug: 68° for $\frac{3}{16}$ " Ball Race.
- 1414 Bottom Head Lug: 66° for $\frac{3}{16}$ " Ball Race.

The Head Outside Tube will be $1\frac{1}{8}$ ", 22 gauge.

The Wheel Base can be reduced to $42\frac{1}{4}$ " by substituting:—

- 1074-2 Chain Struts.

and by a further $1\frac{1}{4}$ " to $41\frac{1}{2}$ " by using a semi-straight fork, details of which will be found on page 5.



No. 4LA Lady's Frame—Small Tube Set

Wheel Base: $42\frac{1}{2}$ ". Bracket Height, $10\frac{7}{8}$ " with 26" Wheels.

- 919-1 Top Head Lug: $68\frac{1}{2}^\circ$ for $\frac{1}{8}$ " Ball Race.
- 1015 Bottom Head Lug: 66° for $\frac{1}{8}$ " Ball Race.
- 917 Bottom Bracket Shell.
- 682-3 Seat Lug.
- 918-1 Frame Lug: $68\frac{1}{2}^\circ$
- 1074-2 Chain Strut.

FULL SIZE WORKING PRINTS will be sent upon application

No. 4LA Lady's Frame (continued)

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 22" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter and Gauges of Tubes.
—	Top Down Tube (double butted)	—	21"	$\frac{7}{8}$ " x 18 — 22
B	Seat Tube (single butted)	22"	$21\frac{9}{16}$ "	1" x 19 — 22
C	Chain Strut with rear opening Fork End	18"	$16\frac{1}{2}$ "	$\frac{7}{8}$ " diameter round to oval.
C1	Ditto with forward opening Fork End	$18\frac{11}{16}$ "	$16\frac{1}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
D	Down Tube (double butted)	$22\frac{1}{2}$ "	$21\frac{11}{16}$ "	1" x 18 — 20
E	Head Outside Tube	$6\frac{1}{2}$ "	6"	$1\frac{1}{8}$ " x 22
H	Distance between Front Wheel and Bracket	$24\frac{1}{2}$ "	—	—
—	Seat Stays	—	$18\frac{7}{8}$ "	Tapered.
—	Distance between Front Fork Ends	$3\frac{7}{16}$ "	—	—

No. 5L Lady's Frame

Wheel Base, $43\frac{1}{2}$ ". Bracket Height, $10\frac{1}{2}$ " with 26" Wheels.

919-2	....	Top Head Lug: $68\frac{1}{2}$ " for $\frac{1}{8}$ " Ball Race.
1009	....	Bottom Head Lug: 66" for $\frac{1}{8}$ " Ball Race.
917-2	....	Bottom Bracket Shell.
682-2	....	Seat Lug.
918	....	Frame Lug: $68\frac{1}{2}$ "
1074	....	Chain Struts.

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 21" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter and Gauges of Tubes.
—	Top Down Tube (double butted)	—	$21\frac{3}{4}$ "	1" x 19 — 22
B	Seat Tube (single butted)	21"	$20\frac{9}{16}$ "	$1\frac{1}{8}$ " x 19 — 22
C	Chain Strut with rear opening Fork End	$18\frac{3}{4}$ "	$17\frac{1}{4}$ "	$\frac{7}{8}$ " diameter round to oval.
C1	Ditto with forward opening Fork End	$19\frac{7}{16}$ "	$16\frac{7}{8}$ "	$\frac{7}{8}$ " diameter round to oval.
D	Down Tube (double butted)	$23\frac{3}{16}$ "	$22\frac{3}{8}$ "	$1\frac{1}{8}$ " x 19 — 22
E	Head Outside Tube	$6\frac{1}{2}$ "	6"	$1\frac{1}{4}$ " x 22"
H	Distance between Front Wheel and Bracket	$24\frac{7}{8}$ "	—	—
—	Seat Stays	—	$18\frac{3}{16}$ "	Tapered.
—	Distance between Front Fork Ends	$3\frac{7}{16}$ "	—	—

The Wheel Base can be reduced to $42\frac{3}{4}$ " by substituting 1074-2 Chain Struts.

Chain Struts

Round Oval Round: $\frac{7}{8}$ " to $\frac{5}{8}$ ".

1074	....	$17\frac{1}{4}$ " long (standard).
1074-2	....	$16\frac{1}{2}$ " long (for short base frames).

Seat Stays

Taper Round: $\frac{5}{8}$ " to $\frac{1}{2}$ ".

705	$21\frac{1}{2}$ " long (suitable for any seat tube length).
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Frame Tubes

Sets of Tubes, suitable for building any of the foregoing frames are kept in stock. For particulars see price list.

Cycle Frames

We supply frames either enamelled or only filed and polished. For further particulars see price list.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CYCLE FITTINGS (continued)

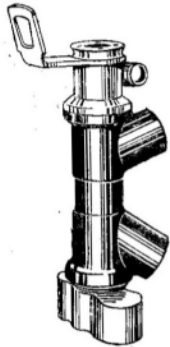


Illustration of Head Clip Model with plain lugs.

Head Lugs

When ordering, state if cut-away or plain lugs are required.

GENT'S TOP.

1413	....	....	....	....	1 1/8" x 1" x 68°	for 3/16" Ball Race.
1010	....	....	....	....	1 1/4" x 1" x 68°	for 1/8" Ball Race.
176	....	....	....	....	1 3/8" x 7/8" x 68°	for 1/8" Ball Race.

LADY'S TOP.

919-2	....	....	....	....	1 1/4" x 1" x 68 1/2°	for 1/8" Ball Race.
919-1	....	....	....	....	1 3/8" x 7/8" x 68 1/2°	for 1/8" Ball Race.

BOTTOM.

1414	....	....	....	....	1 1/8" x 1 1/8" x 66°	for 3/16" Ball Race.
1009	....	....	....	....	1 1/4" x 1 1/8" x 66°	for 1/8" Ball Race.
1009-2	....	....	....	....	1 1/4" x 1 3/8" x 64 1/2°	for 1/8" Ball Race.
1015	....	....	....	....	1 1/8" x 1" x 66°	for 1/8" Ball Race.



Illustration of Colonial Head with cut-away lugs.

Fork Crowns

(for 1" stem)

1435	....	....	(No. 1) Oval Forks,	1 3/8" Tyres.
1435-1	....	....	(No. 8) Oval Forks,	1 1/2" "
1436	....	....	(No. 11) Dee Forks,	1 3/8" "
1436-1	....	....	(No. 9) Dee Forks,	1 1/2" "
685	....	....	(No. 6) 7/8" Round Forks,	1 3/8" "
685-2	....	....	(No. 7) 1" Round Forks,	1 1/2" "

Head Clips

(For 1" Stem). Registered Design No. 738304).

1080-2	....	....	....	For 1/8" Ball Race No. 1257.
1080-3	....	....	....	For 3/16" Ball Race No. 125.

(Bolt No. 164: 126 Nut No. 29: 134).

Head Stems

(Butted).

1412	....	....	1", slotted for Head Clip.
			6 3/4", 7 1/4", 7 3/4", 8 1/4", 8 3/4", 9 1/4", 9 3/4",
			10 1/4", 10 3/4", 11 1/4", 12 1/4", 13 1/4",
			14 1/4" long.
1412-1	....	....	1", slotted for Expander.
			6 1/8", 6 3/8", 7 1/8", 7 3/8", 8 1/8", 8 3/8", 9 1/8",
			9 3/8", 10 1/8", 10 3/8", 11 1/8", 11 3/8" long.

Colonial Screwed Top Races

(For 1" Stem).

1409	....	....	....	....	For 1/8" Balls.
1409-1	....	....	....	....	For 3/16" Balls.

Head Lug Ball Races

1382	....	....	....	....	For 1/8" Balls.
125	....	....	....	....	For 3/16" Balls.

Fork Blades

694-3	....	....	Dee to Round (standard).
694-4	....	....	Oval to Round (standard).
694-5	....	....	Dee to Round (special for semi-straight fork, giving 1 1/4" less trail).

Crown Cones

(For 1" Stem).

366	....	....	....	....	For 1/8" Balls.
438	....	....	....	....	For 3/16" Balls.

Liners

(Flat).

1449	For Dee and Oval Blades.
1449-1	For 1" Round Blades.

Head Lock Nut

443	For 1" Stem.
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Lamp Brackets

(As illustrated above, for 1" Stem).

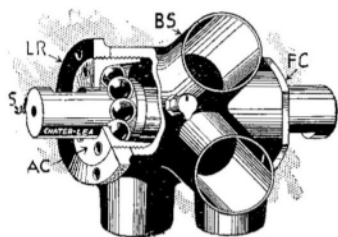
1410	For Head Clip Model.
1410-1	For Colonial Head.

We supply Forks either enamelled or only filed and polished.
For further particulars see price list.

(See also pages 8 and 13).

Cycle Bottom Bracket

(Takes $\frac{1}{16}$ " Balls).



FC is fixed cup, AC is adjusting cup. To adjust the bearings, screw AC into position and hold it with a pin spanner whilst tightening lock ring LR hard against the end of the bracket shell.

BRACKET SHELLS

When ordering, state if cut-away or plain lugs are required.

917-2	....	....	....	....	$1\frac{1}{8}" \times 1\frac{1}{8}" : 66^\circ \times 60^\circ$
917-3	....	....	....	....	$1\frac{1}{8}" \times 1\frac{1}{8}" : 64\frac{1}{2}" \times 60^\circ$
917	....	....	....	....	$1" \times 1" : 66^\circ \times 62^\circ$

INTERIORS

1350	....	....	....	Fixed cup.
1349	....	....	....	Adjusting cup.
380	....	....	....	Lock ring.
1007	....	....	....	Bracket axle (gives $1\frac{1}{2}"$ C.L.).

Rigid Seat Lugs



GENT'S.
(Bolt No. 163: 126, Nut No. 29: 134).

LADY'S.

GENT'S.

When ordering, state if cut-away or plain lugs are required

682-1	....	....	....	$1\frac{1}{8}" \times 1" \times 68^\circ$.
714	....	....	....	$1" \times \frac{7}{8}" \times 68^\circ$.
909	....	....	....	$1\frac{1}{8}" \times 1\frac{1}{8}" \times 66^\circ$ (Tandem).

LADY'S.

682-2	$1\frac{1}{8}"$ Seat Tube.
682-3	1" Seat Tube.

STAY EYES (as illustrated).

683	For $\frac{5}{8}"$ diameter, 20 gauge.
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Chain Wheels

THREE ARM PATTERN.

$\frac{1}{2}"$ Pitch.		1" Pitch.	
36	Teeth $\times \frac{1}{8}"$ only.	20	Teeth $\times \frac{1}{8}"$ or $\frac{3}{16}"$
38	" $\times \frac{1}{8}"$ or $\frac{3}{16}"$.	21	" \times "
40	" \times "	22	" \times "
42	" \times "	23	" \times "
44	" \times "	24	" \times "
46	" \times "	25	" \times "
48	" \times "	26	" \times "
50	" \times "	27	" \times "
52	" \times "	28	" \times "
56	" \times "	29	" \times "
		31	" \times "
		33	" \times "

CL PATTERN.

$\frac{1}{2}"$ Pitch.		1" Pitch.	
42	Teeth $\times \frac{1}{8}"$ only.	22	Teeth $\times \frac{1}{8}"$ or $\frac{3}{16}"$
44	" $\times \frac{1}{8}"$ or $\frac{3}{16}"$	23	" \times "
46	" \times "	24	" \times "
48	" \times "	25	" \times "
50	" \times "	26	" $\times \frac{1}{8}"$ only
56	" $\times \frac{1}{8}"$ only		

Cranks

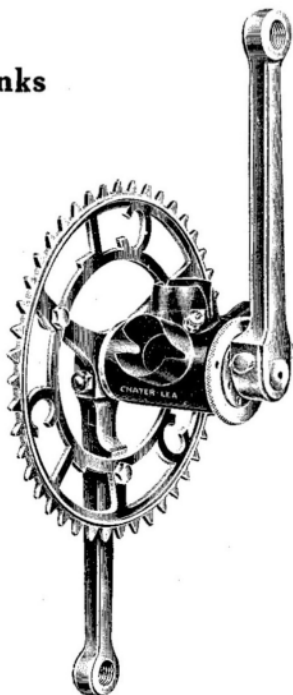
RIGHT

(2 arm, as illustrated).
(Chain Wheel Screw
No. 35: 126).

632	....	....	$6\frac{1}{2}"$ Centres.
629	....	....	$6\frac{3}{4}"$ Centres.
627	....	....	7" Centres.

LEFT.

633	....	....	$6\frac{1}{2}"$ Centres.
630	....	....	$6\frac{3}{4}"$ Centres.
628	....	....	7" Centres.



COTTER PARTS.

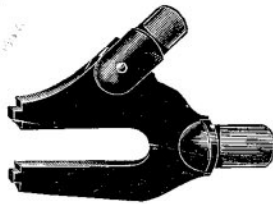
488	....	Cotter.
17: 134	....	Nut.
9: 133	....	Washer.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CYCLE AND TANDEM FITTINGS

Rear Fork Ends

(And Adjusters).

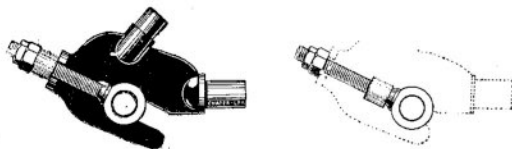


- 684-2 (No. 4A) rear opening Fork End, suitable for solid or hollow spindle rear hubs.
- 594 Adjuster for solid spindle hubs.
- 594-1 Adjuster for hollow spindle single cog hub.
- 8: 134 Nut for adjuster 594 and 594-1.
- 726 Adjuster for hollow spindle double cog hub.
- 17: 134 Nut for adjuster 726.
- 595 Adjuster plate.



Forward opening Fork Ends, giving quick release for solid spindle hubs. Used with special loose collar nuts listed on this page.

- 939-2 (No. 5A) Plain.
- 939-3 (No. 6) Serrated (as illustrated).



- 939 (No. 5) forward opening Fork End, gives quick release for solid spindle hubs and has an abutment for an adjuster. With a double cog hub, the loose collar used allows correct chain tension to be obtained without readjustment.
- 969 Adjuster (Nuts: large, 8: 134; small, 9: 134).
- 968 Collar for 3-teeth variation.
- 968-1 Collar for 2-teeth variation.

Strut Tang and Stay End

(Illustrated above with fork ends).

- 940 Tang for Chain Strut ($\frac{1}{2}$ " diameter fitting).
- 709-1 Stay End (for $\frac{5}{8}$ " to $\frac{1}{2}$ " tapered stay).

Front Fork Ends



Recessed.



Plain.



No. 799-4.

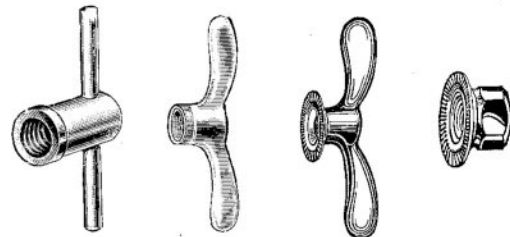
- 799 For $\frac{1}{8}$ " spindle: recessed.
- 799-1 For $\frac{3}{8}$ " spindle: recessed.
- 799-2 For $\frac{5}{8}$ " spindle: plain.
- 799-3 For $\frac{3}{8}$ " spindle: plain.
- 799-4 $\frac{1}{2}$ " diameter hole, $\frac{5}{8}$ " slot.

FOR HOLLOW SPINDLE FRONT HUBS.

(Illustrated with hubs on page 19).

- 190-2 Left (tapped $\frac{1}{4}$ ", 26 threads).
- 189-2 Right ($\frac{1}{4}$ " clearance).

Wing and Track Nuts



- 34: 134
- 43: 134
- 1454
- 1455
- 1456

STEEL WING NUTS.

- 34: 134 $\frac{1}{8}$ ", suits recessed fork end 799.
- 43: 134 $\frac{3}{8}$ ", suits recessed fork end 799-1 and rear fork ends when an adjuster is used.

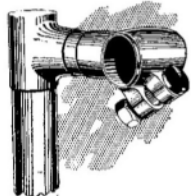
DURALUMIN WING NUTS.

- 1454 $\frac{1}{8}$ ", suits recessed fork end 799.
- 1455 $\frac{3}{8}$ ", suits plain fork end 799-3 and rear fork ends with no adjuster.

TRACK NUT.

- 1456 For $\frac{3}{8}$ " spindle.

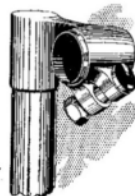
Handlebar Stems



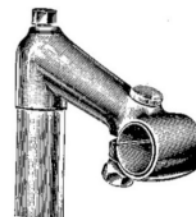
1457 to 1457-2.



1457-3 to 1457-5.



1458 to 1458-2.



1458-3 to 1458-5.

- 1457 (No. 16), $\frac{3}{8}$ " stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.
- 1457-1 As above, but for expander.
- 1457-2 1" stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.
- 1457-3 (No. 18), $\frac{3}{8}$ " stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.
- 1457-4 As above, but for expander.
- 1457-5 1" stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.

- 1458 (No. 17), $\frac{3}{8}$ " stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.
- 1458-1 As above, but for expander.
- 1458-2 (No. 17A), 1" stem, for $\frac{3}{8}$ " handlebar and head clip. As illustrated.
- 1458-3 (No. 19), $\frac{3}{8}$ " stem, for $\frac{3}{8}$ " handlebar and head clip.
- 1458-4 As above, but for expander. As illustrated.
- 1458-5 1" stem, for $\frac{3}{8}$ " handlebar and head clip.

Stem Lugs



1459.



1459-1.



1459-2.

- 1459 (No. 21), $\frac{7}{8} \times \frac{7}{8}$ ", as used on stems 1457 to 1457-2.
- 1459-1 (No. 22), $\frac{7}{8} \times \frac{7}{8}$ ", as used on stems 1457-3 to 1457-5.
- 1459-2 $\frac{7}{8} \times \frac{7}{8}$ ".

When used for a 1" stem, both lug and stem are brazed on a short liner $\frac{7}{8}$ " diameter.

Forward Handlebar Clip Lugs

(As used on models illustrated above).

- FLAT. (Clip Bolt No. 163: 126; Nut No. 29: 134).
- 756 (No. 29), $\frac{7}{8}$ " stem, for $\frac{3}{8}$ " handlebar.
- 756-4 (No. 29A), 1" stem, for $\frac{3}{8}$ " handlebar.
- INCLINED. (Clip Bolt No. 165: 126; Nut No. 29: 134).
- 756-5 $\frac{7}{8}$ " stem, for $\frac{3}{8}$ " handlebar and head clip.
- 756-3 (No. 32), as above, but for expander.

When either 756-5 or 756-3 is used for a 1" stem, both lug and stem are brazed on a short liner $\frac{7}{8}$ " diameter.

Clip Tee

- 756-2 (No. 30), for $\frac{3}{8}$ " handlebar (Clip Bolt No. 163: 126; Nut No. 29: 134).



Handlebar Liner

- 1460 As used with all stems illustrated above and also with Tandem Back Handlebar clip lugs listed on page 9.

Expander

- 960 For $\frac{3}{8}$ " handlebar stems. (Bolt No. 17J: 126 for expander is full length and suitable for any length stem).

Lamp Bracket



1461.

Suitable for all stems incorporating clip tee No. 756-2 or forward handlebar clip lugs Nos. 756 or 756-4 shown on this page.

For other lamp brackets, see pages 5 for cycle and 13 for tandem.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CYCLE AND TANDEM FITTINGS

(continued)

Tandem Back Handlebar Clips



1041.



1041-1.

- 1041 (No. 22D), $\frac{7}{8}$ " for T pattern seat pillar and $\frac{7}{8}$ " handlebar.
 1041-1 (No. 22A), $1\frac{1}{16}$ " for straight or L pattern seat pillar and $\frac{7}{8}$ " handlebar.

(Clip Bolts No. 163: 126; nuts 29: 134).

Pump Hooks



615-4.



615-3.



615-5.

- 615-4 Curved to shape of tube.
 615-3 (Registered design).
 615-5 Extra large.

Chain Hook



1013.

Mudguard Eye



Seat Pillars



1014
1014-1



1014-2
1014-3



1014-4

- 1014 $1\frac{1}{16}$ " to $\frac{7}{8}$ ", fits $1\frac{1}{8}$ " x 22 G. seat tube.
 1014-1 $\frac{11}{16}$ " to $\frac{7}{8}$ ", fits 1" x 22 G. seat tube.
 1014-2 $1\frac{1}{16}$ " x $\frac{7}{8}$ ", fits $1\frac{1}{8}$ " x 22 G. seat tube.
 1014-3 $\frac{11}{16}$ " x $\frac{7}{8}$ ", fits 1" x 22 G. seat tube.
 1014-4 $1\frac{1}{16}$ " x $\frac{7}{8}$ ", fits $1\frac{1}{8}$ " x 22 G. seat tube.

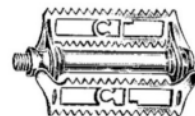
L Pin Lugs



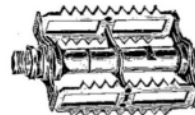
- 1462 For $\frac{11}{16}$ " seat pillar, fits 1" x 22 G. seat tube.
 1462-1 For 1" seat pillar, fits $1\frac{1}{8}$ " x 17 G. seat tube.
 1462-2 For $1\frac{1}{16}$ " seat pillar, fits $1\frac{1}{8}$ " x 22 G. seat tube.

CHATER-LEA PEDALS

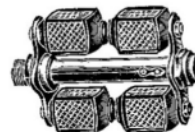
Pedals are typical of all Chater-Lea workmanship in their excellent design and finish. All turned solid bearings are used, not pressed up cups as fitted to the cheaper class of pedal.



Chater-Lea Race Rat Trap Pedal will take any width shoe.



Chater-Lea Roadster Rat Trap Pedal. Standard width, $3\frac{3}{8}$ "; and extra wide, 4".



Chater-Lea Divided Pattern Rubber Pedals, with soft quality rubbers. Neat and distinctive.

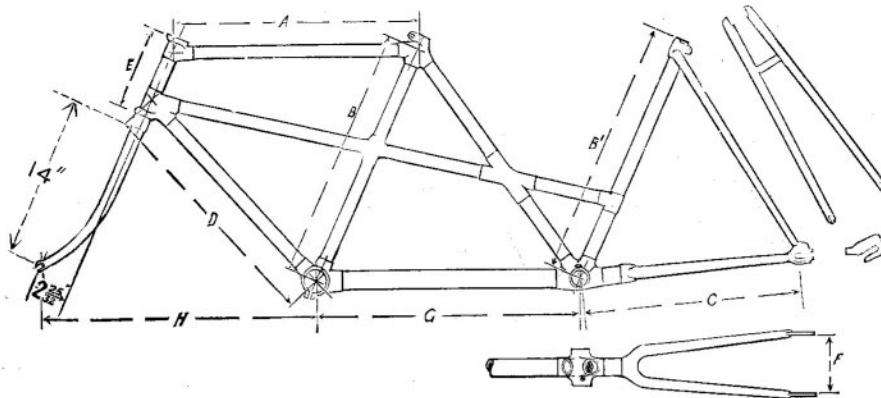


Chater-Lea Rubber Pedals with soft quality rubbers. Standard width rubbers, $3\frac{3}{8}$ "; and extra wide rubbers, 4".

Full particulars of spare parts for Chater-Lea Pedals are given in the price list.

CHATER-LEA MFG. CO., LTD. (Estd. 1890), New Icknield Way, Letchworth, Herts, England.

CHATER-LEA TANDEM FITTINGS



No. 15A Lady-Back Tandem

Wheel Base, 64". Bracket Height 11" with 26" Wheels.

Seat Tube, 21", 22" or 23".

Chain Line, 1 $\frac{3}{4}$ ".

1430	.....	.....	Top Head Lug.	1433	.....	Front Cross Lug.
1075	.....	.....	Bottom Head Lug.	1388	.....	Rear Cross Lug for 23" Frame.
1432	.....	.....	Front Seat Lug.	1388-1	.....	" " " 22" "
682-2	.....	.....	Rear Seat Lug.	1388-2	.....	" " " 21" "
929	.....	.....	Front Eccentric Shell.	1434-14	.....	Frame Lug.
1239-2	.....	.....	Rear Bracket Shell.	967	.....	Strut Bridge.

When ordering Fittings specify seat tube length required. It will be noticed that the rear cross lug is supplied with a choice of angles (see also page 13). The Front Seat lug and Bracket Shell have short fittings and are made the correct angle for a 22" Frame, there is no difficulty therefore in obtaining the necessary difference of 2° either way when building a 21" or 23" Frame.

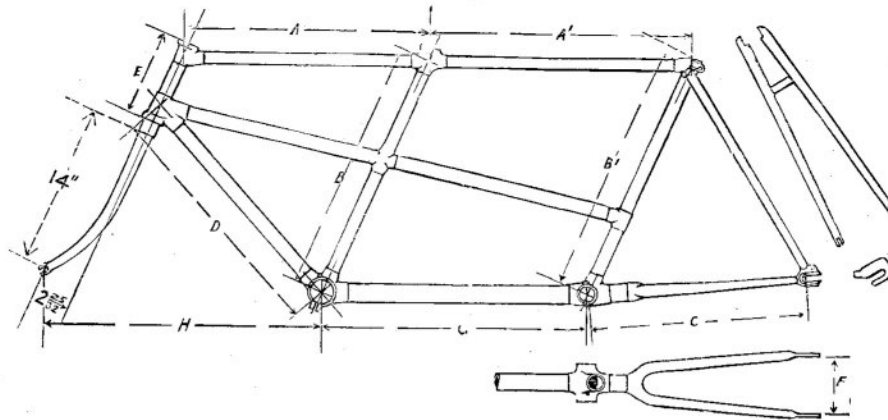
TUBE LENGTHS. Allowing for a full mitre, and suitable for building a 22" Frame.

	Name.	Frame Dimension.	Length of Tube.	Diameter of Tube.	Gauge of Tube.
A	Top Tube	21"	20 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	22
B	Front Seat Tube (single butt)	21 $\frac{1}{2}$ "	21 $\frac{3}{4}$ "	1 $\frac{1}{8}$ "	19 — 22
B1	Rear Seat Tube	—	21 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	17
	Short Tube	—	4"	1 $\frac{5}{8}$ "	16
C	Chain Strut with rear opening Fork Ends	18 $\frac{1}{2}$ "	12 $\frac{5}{8}$ "	1" to 1 $\frac{5}{8}$ "	—
C1	Ditto forward opening Fork Ends	19 $\frac{3}{16}$ "	12 $\frac{1}{4}$ "	1" to 1 $\frac{5}{8}$ "	—
D	Down Tube	21"	19 $\frac{3}{4}$ "	1 $\frac{1}{8}$ "	20
E	Head Outside Tube	7 $\frac{1}{8}$ "	6 $\frac{9}{16}$ "	1 $\frac{5}{16}$ "	20
F	Distance between Forks	5 $\frac{1}{16}$ "	—	—	—
G	Bottom Tube	22 $\frac{1}{2}$ "	21 $\frac{5}{8}$ "	1 $\frac{5}{8}$ "	20
H	Distance between Front Wheel and Bracket	23 $\frac{3}{8}$ "	—	—	—
	Seat Stays	—	—	Tapered	—
	Front Cross Tube	19 $\frac{1}{2}$ "	18 $\frac{3}{8}$ "	1 $\frac{1}{8}$ "	22
	Rear Cross Tube	21"	20 $\frac{3}{8}$ "	1 $\frac{1}{8}$ "	22
	Tube from Seat Lug to Cross Tube	13 $\frac{1}{2}$ "	13 $\frac{5}{16}$ "	1 $\frac{5}{16}$ "	22
	Ditto Cross Tube to Bracket	10 $\frac{9}{16}$ "	9 $\frac{5}{8}$ "	1 $\frac{1}{8}$ "	22
	Distance between Front Fork Ends	3 $\frac{7}{8}$ "	—	—	—

FULL SIZE WORKING PRINTS will be sent on application.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA TANDEM FITTINGS (continued)



No. 12B Race Tandem

Wheel Base, $65\frac{1}{2}$ " Bracket Height, $10\frac{1}{2}$ " with 26" Wheels.

Seat Tube, 20" or over.

Chain Line, $1\frac{3}{4}$ ".

1430	.....	Top Head Lug.	1239-3	.....	Rear Bracket Shell.
1075	.....	Bottom Head Lug.	1433	.....	Front Cross Lug.
1431	.....	Front Seat Lug.	1434-14	.....	Frame Lug.
909	.....	Rear Seat Lug.	967	.....	Strut Bridge.
929	.....	Front Eccentric Shell.			

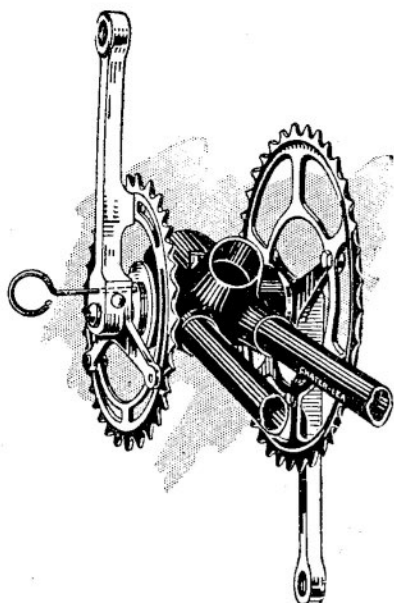
TUBE LENGTHS. Allowing for a full mitre and suitable for building a 20" Frame. When longer Seat Tubes are used the head outside tube is lengthened by a corresponding amount.

	Name.	Frame Dimension.	Length of Tube.	Diameter of Tube.	Gauge of Tube.
A	Front Top Tube	$22\frac{3}{8}$ "	$21\frac{3}{8}$ "	$1\frac{1}{8}$ "	22
A1	Rear Top Tube	$22\frac{3}{8}$ "	$21\frac{3}{8}$ "	$1\frac{1}{8}$ "	22
B	Front Seat Tube (single butt)	$19\frac{1}{2}$ "	$19\frac{3}{8}$ "	$1\frac{1}{8}$ "	19 — 22
B1	Rear Seat Tube (single butt)	20"	$19\frac{1}{2}$ "	$1\frac{1}{8}$ "	19 — 22
	Short Tube	—	4"	1"	16
C	Chain Strut with rear opening Fork Ends	$18\frac{1}{2}$ "	$12\frac{5}{8}$ "	$7\frac{7}{8}$ " taper to $1\frac{1}{8}$ "	—
C1	Ditto with forward opening Fork Ends	$19\frac{3}{16}$ "	$12\frac{1}{2}$ "	$7\frac{7}{8}$ " taper to $1\frac{1}{8}$ "	—
D	Down Tube	$22\frac{3}{8}$ "	$21\frac{1}{8}$ "	$1\frac{1}{8}$ "	20
E	Head Outside Tube	4"	$3\frac{7}{16}$ "	$1\frac{5}{16}$ "	20
F	Distance between Forks	$5\frac{1}{16}$ "	—	—	—
G	Bottom Tube	$22\frac{3}{8}$ "	$21\frac{1}{2}$ "	$1\frac{5}{8}$ "	20
H	Distance between Front Wheel and Bracket	$24\frac{1}{2}$ "	—	—	—
	Seat Stays	—	—	Tapered	—
	Front Cross Tube	$20\frac{13}{16}$ "	20"	$1\frac{3}{8}$ "	22
	Rear Cross Tube	$20\frac{13}{16}$ "	$20\frac{3}{8}$ "	$1\frac{1}{8}$ "	22
	Distance between Front Fork Ends	$3\frac{5}{8}$ "	—	—	—

FULL SIZE WORKING PRINTS will be sent on application.

CHATER-LEA MFG. CO., LTD. (Estd. 1890), New Icknield Way, Letchworth, Herts, England.

No. 14 Race Tandem



On this model, straight taper chain struts have been incorporated, and narrower chain lines and a shorter wheel base obtained by crossing over the chain drive. The frame lay-out resembles that of the No. 12B Tandem with the exception of the rear bracket, which is shown in the accompanying illustration. As will be noticed (Patent No. 301993) provision is made for adjusting the bracket cup by means of a peg which when passed through a small hole in the crank registers into one of the pin holes in the cup. By this means the cup is adjusted up and held in position whilst the lock ring is screwed up.

Wheel Base, $63\frac{1}{2}$ "
Seat Tube, 20" or over.

Bracket Height $10\frac{13}{16}$ " with 26" Wheels.
Chain Line, $1\frac{1}{2}$ ".

1430	.....	.....	.....	.....	Top Head Lug.
1075	.....	.....	.....	.....	Bottom Head Lug.
1431	.....	.....	.....	.....	Front Seat Lug.
909	.....	.....	.....	.....	Rear Seat Lug.
929-1	.....	.....	.....	.....	Front Eccentric Shell.
1239	.....	.....	.....	.....	Rear Bracket Shell.
1433	.....	.....	.....	.....	Front Cross Lug.
1434-14	.....	.....	.....	.....	Frame Lug.

FULL SIZE WORKING PRINTS will be sent upon application.

TUBE LENGTHS. Allowing for full mitre, and suitable for building a 20" Frame. When longer seat tubes are used, the head outside tube is lengthened by a corresponding amount.

	Name.	Frame Dimension.	Length of Tube.	Diameter of Tube.	Gauge of Tube.
A	Front Top Tube	$22\frac{3}{16}$ "	$21\frac{9}{16}$ "	$1\frac{1}{8}$ "	22
A1	Rear Top Tube	$21\frac{1}{16}$ "	$20\frac{7}{8}$ "	$1\frac{1}{8}$ "	22
B	Front Seat Tube (single butt)	$19\frac{1}{2}$ "	$19\frac{3}{4}$ "	$1\frac{1}{8}$ "	19-22
B1	Rear Seat Tube (single butt)	20"	$19\frac{1}{2}$ "	$1\frac{1}{8}$ "	19-22
C	Chain Strut with rear opening Fork Ends	18"	$16\frac{1}{2}$ "	$\frac{7}{8}$ " round to oval.	—
C1	Ditto with forward opening Fork Ends	$18\frac{11}{16}$ "	$16\frac{1}{8}$ "	$\frac{7}{8}$ " round to oval.	—
D	Down Tube	$22\frac{1}{4}$ "	21"	$1\frac{1}{4}$ "	20
E	Head Outside Tube	$4\frac{1}{2}$ "	$3\frac{13}{16}$ "	$1\frac{5}{16}$ "	20
F	Distance between Forks	$4\frac{7}{16}$ "	—	—	—
G	Bottom Tube	$21\frac{1}{4}$ "	20"	$1\frac{1}{2}$ "	20
H	Distance between Front Wheel and Bracket	$24\frac{1}{4}$ "	—	—	—
	Seat Stays	—	—	Tapered	—
	Front Cross Tube	$20\frac{3}{8}$ "	$19\frac{3}{4}$ "	$1\frac{1}{8}$ "	22
	Rear Cross Tube	$19\frac{3}{8}$ "	$19\frac{1}{4}$ "	$1\frac{1}{8}$ "	22
	Distance between Front Fork Ends	$3\frac{7}{8}$ "	—	—	—

Chain Struts

1381 $\frac{7}{8}$ " to $\frac{5}{8}$ " Taper Round $12\frac{5}{8}$ " long, for No. 15A and 12B Tandems.

1074-3 $\frac{7}{8}$ " to $\frac{5}{8}$ " Round, Oval, Round $16\frac{1}{2}$ " long, for No. 14 Tandem.

Seat Stays

Taper Round: $\frac{5}{8}$ " to $\frac{1}{2}$ ".

705 $21\frac{1}{2}$ " long (suitable for any seat tube length).

Frame Tubes

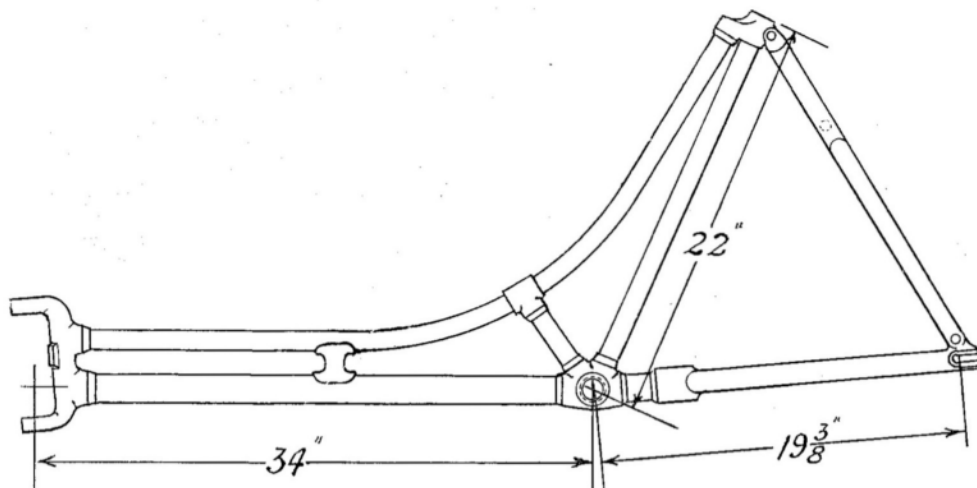
Set of Tubes, suitable for building any of the foregoing frames are kept in stock. For particulars see price list.

Tandem Frames

We supply Tandem Frames, either enamelled or only filed and polished. Further particulars see price list.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CARRIER TRICYCLE FITTINGS



Standard Model

(Frame No. 1306).

1355	....	Head Outside Lug.	1417	....	Strut Bridge.
1239-2	....	Bracket Shell.	1434-16	....	1 1/8" T Lug.
1418	....	Seat Lug.	279 and 280	....	Fork Ends (R. and L.).
1407	....	Lap Lug (optional).	329 and 330	....	Stay Ends (R. and L.).
1416	....	Pressing for Stay Bridge (2), optional.			

Tube Lengths

Ball Head to Bracket	....	....	....	....	....	....	....	....	....	1 1/8" diameter x 31 1/2" x 16 Gauge.
Curved Tube	....	....	....	....	....	....	....	....	....	1 1/8" diameter x 48" x 14 Gauge.
Seat Tube	....	....	....	....	....	....	....	....	....	1 1/8" diameter x 21 1/2" x 17 Gauge.
Bracket to Curved Tube	....	....	....	....	....	....	....	....	....	1 1/8" diameter x 6" x 18 Gauge.
Extension to Bridge	....	....	....	....	....	....	....	....	....	1 1/8" diameter x 4 3/4" x 16 Gauge.
Chain Struts	....	....	....	....	....	....	....	....	....	1" D x 13" x 16 Gauge.
Seat Stays (1415)	....	....	....	....	....	....	....	....	....	1 7/8" D x 18 1/2" x 16 Gauge.
Bridge for Seat Stays	....	....	....	....	....	....	....	....	....	1 7/8" diameter x 3" x 16 Gauge.

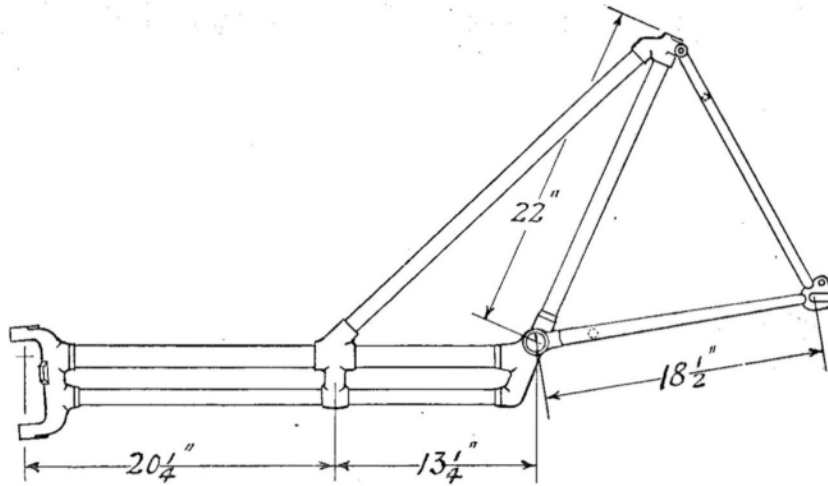
FULL SIZE WORKING PRINTS will be sent upon application.

Front Axles for Standard Model



1421 Axles 32", 33", 34", 36" in stock. Other lengths can be supplied if required.

For Side Hub parts see page 17.



Drop Chassis Model

(Frame No. 1306-1. Registered Design No. 755116).

This model, which has been brought out to meet a rapidly increasing demand for a machine having a low box, has the following features, which both facilitate building and combine to form an extremely strong frame.

Straight taper round stays have been introduced from the bracket to the fork ends, this doing away with the extra brazing required where a strut bridge of the usual type is employed, and in conjunction with round seat stays form a very rigid back. Straight frame tubes are everywhere employed, there being no tube bending required other than a single set on each of the seat stays. The drop frame lug (Registered No. 755117), has fittings for both lower tubes, there is no short tube to be mitred and brazed here.

1355-1	....	....	Head Outside Lug.	1446	....	....	Fork Ends (Registered No. 755115).
1443	....	....	Bracket (Registered No. 755118).	940-1	....	....	Tangs (4) for Fork Ends.
1444	....	....	Seat Lug.	1447	....	....	Stay Ends.
1445	....	....	Drop Frame Lug (Registered No. 755117)				

Tube Lengths

Head to Bracket	....	....	....	....	....	....	....	1 1/8" diameter x 30 1/2" x 16 Gauge.
Head to Bracket	....	....	....	....	....	....	....	1" diameter x 29 1/2" x 16 Gauge.
Front Down Tube	....	....	....	....	....	....	....	1" diameter x 28 1/2" x 16 Gauge.
Seat Tube	....	....	....	....	....	....	....	1" diameter x 21 1/2" x 17 Gauge.
Chain Struts (1074-4)	....	....	....	....	....	....	....	Taper Round 7/8" to 1/2" x 16 1/2" x 17 Gauge.
Seat Stays (1448)	....	....	....	....	....	....	....	1 1/8" diameter x 16 3/8" x 16 Gauge.
Bridge for Chain Struts	....	....	....	....	....	....	....	1" diameter x 2" x 16 Gauge.
Bridge for Seat Stays	....	....	....	....	....	....	....	1" diameter x 3" x 16 Gauge.

Tube Sets

Sets of tubes for either model kept in stock. For particulars see price list.

Carrier Frames

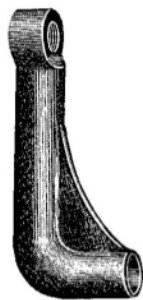
We supply frames either enamelled or only filed and polished. For further particulars see price list.

FULL SIZE WORKING PRINTS will be sent upon application.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA CARRIER TRICYCLE FITTINGS

(continued)



1442

Front Axle and Side Hubs for Drop Chassis Set

Plain Axle, standard width, 1" diameter, 25½" long.

Side Hubs, as illustrated on page 15, but fitted with screwed stub and lock nut.

1442 Cranked Axle Lug.

Small Scale Print (No. 1408) giving all information for building will be sent upon application.

Side Hub Parts

(For both models).

203	.....	.....	.....	Hub Body.	70: 134	Locknut (R. and L.).
197	.....	.....	.....	Inside Cup.	41: 133	Locking Washer.
198	.....	.....	.....	Outside Cup.	207	Dust Cap.
200	.....	.....	.....	Inside Cone.	468-2	Spindle (for drop chassis Model only).
199	.....	.....	.....	Outside Cone (R. and L.).	94: 134	Nut Locking Spindle in Drop Lug.

($\frac{3}{16}$ " Lubricator, $\frac{1}{4}$ " Balls).

Carrier Steering Head

With forged steel Head Stem and $\frac{1}{4}$ " Balls.

1355	.....	Head Outside Lug for standard model.		
1355-1	.....	Ditto for drop chassis model.	249-1	..... Cone.
197	.....	Head Cup (top or bottom).	94: 134	..... Nut.
175-1	.....	Head Stem.	61: 133	..... Locking Washer.



Seat Lug

1418	.....	Seat Lug: $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x 8° for standard model.
1444	.....	Ditto: $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x 22½° for drop chassis model.
329 and 330	.....	Stay End (R. and L.) for $\frac{7}{8}$ " x 16 Gauge Dee Tube: standard model.
1447	.....	Ditto for $\frac{3}{4}$ " x 16 Gauge Round Tube: drop chassis model.
176: 126	.....	Seat Bolt.
38: 132	.....	Stud to take the place of seat bolt if back brake is fitted.
37: 134	.....	Nut for seat bolt or stud.

Back Brake

1360-1	.....	Lever.
79:147	.....	Spring.
28:134	.....	Nut retaining lever on stud No. 38: 132.
13:133	.....	Washer for ditto.
1361	.....	Rod for standard model.
1361-1	.....	Rod (shorter than 1361) for drop chassis model.
1362	.....	Stirrup.
8:134	.....	Adjusting Nut.
1363	.....	Brake Shoe (R. and L.).
1364	.....	Brake Pad.
1365	.....	Guide for $\frac{7}{8}$ " Dee Stays: standard model.
1365-1	.....	Ditto for $\frac{3}{4}$ " Round Stays: drop chassis model.
13: 126	.....	Bolt retaining Shoe and Guide.



Carrier Bracket

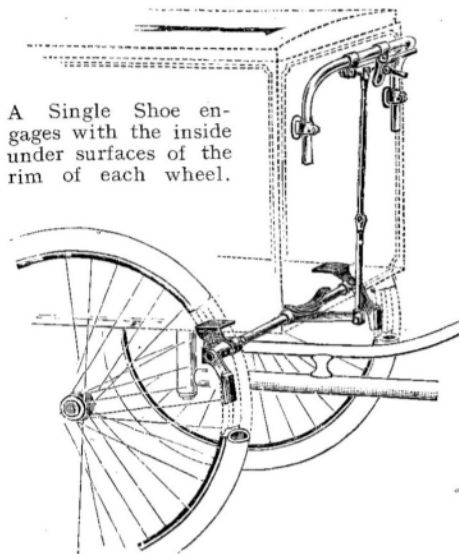
1239-2	.....	Bracket Shell for standard model.
1443	.....	Ditto for drop chassis model.
802	.....	Bracket Axle.
1350	.....	Fixed Cup.
1349	.....	Adjusting Cup.
380	.....	Lock Ring.
		($\frac{3}{16}$ " Lubricator, $\frac{5}{16}$ " Balls).
631	.....	Right Crank, three arm, $6\frac{1}{2}$ " Centres.
574	.....	Left Crank, $6\frac{1}{2}$ " Centres.
		40 Teeth Chainwheel, $\frac{1}{2}$ " Pitch for $\frac{3}{16}$ " Chain is standard.
		(Chainwheel Screw No. 35: 126).

For alternative Chainwheels and particulars of Cotter parts see page 6. Pedals on page 9.

Corner Rail Standard

1404.
Unplated.
Fitted with Nut and Washer.





A Single Shoe engages with the inside under surfaces of the rim of each wheel.

Carrier Front Brake

Supplied with or without locking clip.

BRIGHT PLATED PARTS.

- 1366 Handlebar Lever.
- 1367 Fulcrum Clip (Bolt No. 27: 126, Nut No. 17: 134).
- 1368 Locking Clip (optional), Screw No. 146: 126.
- 452 Wing Nut (Washer No. 11: 133).
- 1369 Screwed Rod.
- 3: 145 Yoke End for ditto (Bolt No. 7: 126).
- 1370-1 Adjusting Tube with Socket and Yoke fitted.
- 313 Eye Bolt for Socket (Nut No. 9: 134, Washer No. 1: 133)
- 24: 126 Both for Yoke End (Nut No. 17: 134).

OTHER PARTS.

- 1371-1 Cross Bar with Lever fitted.
- 1372 Spring (enamelled).
- 1373 Box Brackets (R. and L.).
- 1375 Collar for Cross Bar (Bolt No. 9: 126).
- 712 and 713 Brake Shoes (R. and L.), (Clip Bolt No. 62: 126).
- 1374 Pad for Brake Shoe, Fibrax.
- 13: 126 Bolt Securing Pad.

Carrier Handlebar

- 1422 Either plated or in the bright

Carrier Seat Pillar

- 1014-5 1" x $\frac{3}{8}$ " (L Pattern), fits $1\frac{1}{8}$ " x 17 gauge Seat Tube. (For L Pin Lugs, see page 9).

Carrier Box Spring Parts

- 1340 Box Spring.
 - 1425 Stiffener (optional).
 - 1424 Lath.
- $\frac{5}{16}$ " Coach Bolts and Nuts for Box.



- 1419 Spring Lug.
- 1420 Plates for Spring Lug.
- 165: 126 Bolts for Spring Lug.
- 28: 134 Nuts for Bolts.

Carrier Rear Hub

$\frac{7}{16}$ " Spindle, $\frac{5}{16}$ " Balls (further particulars of this hub will be found on page 19, i.e., No. 53).

- 465 Hub Body
- 396 Fixed Cup.
- 397 Adjusting Cup.
- 395 Lock Ring.
- 466 Spindle.
- 996-3 Collar (between Fork Ends on drop chassis Model only).
- 33: 133 Washer: standard model only.
- 50: 134 Nuts.
- $\frac{5}{16}$ " Lubricator.

Hub Cogs and Free Wheels are listed on page 20.

Handlebar Clip Lug

1423.

(Clip Bolt No. 164: 126.
Nut No. 29: 134).



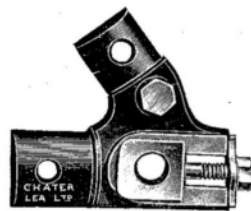
Lamp Bracket

1463.

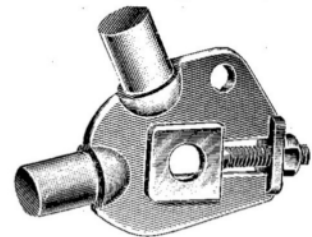
Supplied plated or in the bright.



Carrier Rear Fork Ends and Adjusters



279 and 280.



1446.

- 279-280 Fork Ends (R. and L.) for standard Model. (For 1" D. x 16 gauge Chain Strut and $\frac{3}{8}$ " D. x 16 gauge Seat Stays).
- 1446 Fork Ends (Registered No. 755115) for drop chassis model. (For $\frac{3}{4}$ " diameter x 16 gauge Round Struts and Stays).
- 940-1 Tangs (4) for Strut and Stay Fittings on Fork End No. 1446 only.
- 326 Adjuster (Nut No. 17: 134).
- 325 Adjuster Plate for Fork Ends No. 279 and 280 only.
- 325-1 Ditto for Fork End No. 1446.

Carrier Mudguard Parts

- Mudguard Blades, Front and Rear, for particulars see price list.
- 1464 Side Brackets for Box.
- 1465 Three-way Axle Clip (alternative for No. 1464).
- 62: 126 Clip Bolts.
- 1466 Bridge Piece for Rear Guard.
- 1467 Rear Mudguard Stays.
- 1468 Stay Eye for Rear Mudguard Stay.

Wheels and Rims

We can supply wheels built up, either enamelled or in the bright, also rims separately, see price list.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

CHATER-LEA SPANNERS, TOOLS, ETC.

Bracket Tap and Guide



For cleaning out Bottom Brackets after Brazing, $1\frac{7}{16}$ " x 26 threads, right or left hand.

Sold as a complete set or parts separately. Taps can be used without guides if desired.

997 Guide.
997-1 (R. or L.) Taps.

Fixed Cup Tool

For removing and inserting fixed Cups. Having two interchangeable heads, it is suitable for all Tandem and Cycle Hubs excepting the Tandem Roadster $\frac{1}{8}$ " Spindle Hub No. 53.

The pegs in the head are held in engagement with the holes in the cup by means of the spindle.
A $\frac{1}{2}$ " tommy is then used.

Complete Set No. 1429.

All parts are dull plated.



1429-1 Spindle.
1429-2 Head for Cycle Back and all Tandem.
1429-3 Head for Cycle Front.

Box Spanner

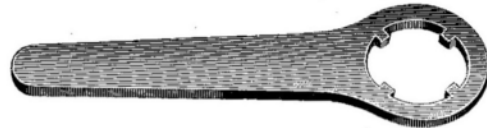


Machined from Steel Stampings. Suitable for rider's use.
No. 282.

Spanner

For Double Cog Hub Lock Rings.

No. 795.



Pin Spanners



1308 For Hub and Bracket Cups, also Head Lock Nuts.
1308-1 For Double Cog Hub Adjusting Cups.

Open Ended Spanners



1022-1 For Tandem Head Lock Nut.
1025 For Double Cog Hollow Spindle Fork End Bush Nut.
1025-1 For Pedal Pins, and Single Cog Hollow Spindle Fork End Bush Nut.

NOTE.—For the convenience of customers who are familiar with old Catalogue numbers, these have been inserted in brackets after new part numbers now quoted in this list.

TRANSFERS.—For each complete set of fittings or for frames built by us, we issue a Transfer, and this is supplied only to the trade, who will see that it is properly fixed.

FOR MOTOR FITTINGS AND MISCELLANEOUS COMPONENTS FOR VARIOUS WORK—SEE SEPARATE CATALOGUE, POST FREE UPON REQUEST.

IF YOU DO NOT SEE THE PART YOU REQUIRE in this Catalogue, write and ask us. We have included as much as possible, but it is quite impossible to give space to many parts of earlier type, for which there can be only a limited demand for replacements.

CHATER-LEA MFG. CO., LTD. (Estd. 1890), New Icknield Way, Letchworth, Herts, England.

TERMS OF BUSINESS

Prices.—A separate Price List has been compiled in the same sequence as this Catalogue, not in numerical order.

Customers should send cash with order to facilitate despatch, otherwise we send *pro forma* invoices. For cash with order we allow 3¼ per cent. discount.

Freights.—Orders to the value of £10 and upwards, for delivery in one consignment, are sent by goods train, carriage paid, to rail stations in Great Britain; smaller orders than £10, or orders for deliveries in lots of less than £10 in value, are sent carriage forward at consignees' risk. Goods are forwarded by passenger train or post at customers' request, but cost of carriage is charged on invoice. Customers' own material, samples or repairs must be delivered free at consignors' risk, and should be properly labelled.

Packing.—Frames, mudguards, etc., are packed specially at an extra charge to cover cost of wood, etc., used. Crates when used are credited in full

if returned within one month in good condition, carriage paid.

Export.—Crates and cases are charged at bare cost only. Cash payable Sterling in London against documents. All forwarding charges extra.

Delivery.—Every effort will be made to keep to delivery dates, but no liability can be accepted for loss caused through delay. The right is reserved to suspend delivery so long as payment for any goods previously invoiced is in arrear.

Returns.—Except when sent out "on approval," we cannot in all cases undertake to accept goods back or exchange them, although we will do so when possible. In such cases we shall deduct a small percentage to cover cost of viewing, re-wrapping, polishing, etc. Scratched or soiled goods will not be taken back except by special arrangement.

NOTE.—To enable us to pass credit, reference number of invoice or receipt must always be quoted.

NOTICE.

We do not appoint agents to sell our goods on our behalf and no dealer is authorised to transact any business, give any warranty, make any representation or incur any liability on our behalf.

We reserve the right to alter designs, constructional details, or prices of our manufactures without giving notice.

GUARANTEE.

Every part which is sold by us carries the following express agreements, which take the place of and exclude all conditions, warranties, and liabilities whatsoever which exist either by Common Law, statute or otherwise. Any statement, description, condition, or representation contained in any catalogue, advertisement, leaflet or other publication shall not be construed as enlarging, varying or over-riding these.

1. We give no guarantee as to performance, quality, or fitness for any particular purpose. Should any defect be alleged in material or workmanship within **Fifty Years** after purchase from us or our accredited Dealers we undertake, on the immediate return of the part which is alleged to be defective to our Works, carriage paid, within such period; and accompanied by particulars as to where purchased and the date, to examine the same, and should any fault be found by us on examination to be solely due to defective material or workmanship, we will repair the defective part or supply a new part in the place thereof free of charge. We do not undertake to bear the cost of any work involved in reinstating a repaired or inserting a new part.

2. This guarantee as to material or workmanship does not extend to defects caused by wear and tear, dirt, neglect, misuse, or accident.

3. Our responsibility is limited to the terms of this guarantee, and we will not be answerable for any contingent or resulting liability or loss arising through any defect or for any claim for labour, material, or other expenditure incurred in remedying any defect.

4. This guarantee shall apply to parts repaired or replaced under Clause 1, and the time limit as to such parts shall run as from the date when any part is repaired or replaced, all the aforesaid implied conditions, liabilities, and warranties being excluded.

5. We do not guarantee specialities of other firms or any component parts supplied to the order of the customer differing from our standard specification.

For Prices see separate Price List, which is arranged in the same sequence as this Catalogue.

We are Specialists in General Engineering

Having extended our accommodation at Letchworth we have facilities for the production of:—

Jigs, Gauges,
Gear Cutting,
Precision Grinding,
Turning, Presswork,
Plating, Welding,
Tube Bending,
Enamelling, etc., etc.

We will supply materials or machine customers' own material, and can undertake either production work, or tool room work to the finest limits, and in either small or large quantities.

Write for Quotation

CHATER-LEA MFG. CO., LTD., **Estab. 1890**

New Icknield Way, Letchworth, Herts., England.

Telephone: Letchworth 490

Telegrams: Chaterlea, Letchworth

Cable Codes: Bentleys and A.B.C. 5th