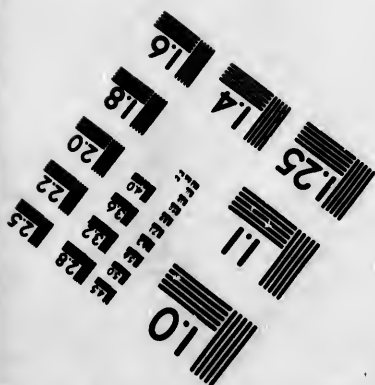
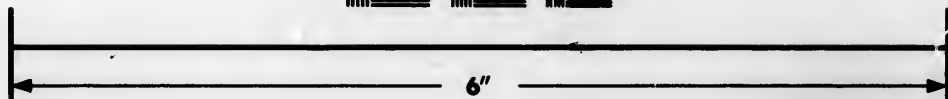
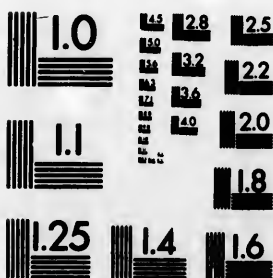


IMAGE EVALUATION TEST TARGET (MT-3)



Photographic
Sciences
Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1984

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- ☐ Coloured covers/
Couverture de couleur
- ☐ Covers damaged/
Couverture endommagée
- ☐ Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/
Le titre de couverture manque
- ☐ Coloured maps/
Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- ☐ Bound with other material/
Relié avec d'autres documents
- ☐ Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- ☐ Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- ☐ Additional comments:/
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured pages/
Pages de couleur
- ☐ Pages damaged/
Pages endommagées
- ☐ Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- ☒ Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- ☐ Pages detached/
Pages détachées
- ☒ Showthrough/
Transparence
- ☐ Quality of print varies/
Qualité inégale de l'impression
- ☐ Includes supplementary material/
Comprend du matériel supplémentaire
- ☐ Only edition available/
Seule édition disponible
- ☐ Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

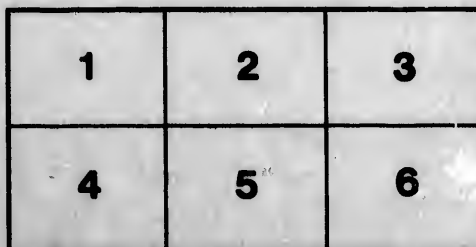
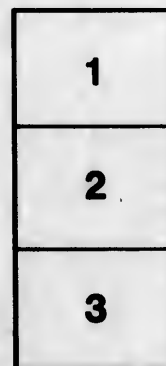
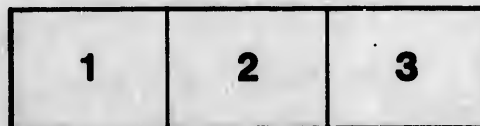
Library of the Public
Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

La bibliothèque des Archives
publiques du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

taille
du
modifier
une
image

errata
to

pelure,
on à

✿'XTRAORDINARY*CHALLENGE✿

THE KING OF SAFETIES.

From **Thos. J. McLean, M. D., Goderich, Ont.:**

Dear Payne,—I have been using the "Xtra." in my practice here since '82, and would not now consent to do without it. It has been an immense convenience, always ready for use by day or night, and it has also been a source of health and recreation. With the improvements lately made, I consider it as useful, safe and comfortable as any bicycle can be made.

Yours sincerely,

THOS. J. McLEAN, M. D.

GODERICH, ONT., 18th January, 1888.

From **Dr. W. H. Moorhouse, London, Ont.:**

LONDON, ONT., 18th Jan., 1888.

Wm. Payne, Esq.: Dear Sir,—The machine which I purchased from you in July, 1885,—“Xtraordinary,” manufactured by Singer & Co., Coventry, Eng.,—has given me entire satisfaction. It is a marvel of mechanical ingenuity and construction, combining strength and durability, with lightness and ease of propulsion. But the great feature in this machine is its safety and ease of mounting, and for our Canadian roads I consider it the machine *par excellence*.

W. H. MOORHOUSE, M. D.

Fully two-thirds crank motion used. Vertical movement. Bringing into action a chain of the most powerful stroke can be made with proportionally the least fatigue.



KING OF SAFETIES.

Balls to all bearings. All bright parts plated. Detachable handle bar. Arab Springs. All complete. Price, \$117.00.

From **S. M. Lloyd, Esq., Manager of the Montreal Bank, Goderich, Ont.:**

GODERICH, Jan. 24, 1888.

Wm. Payne, Esq.: Dear Sir,—Yours of the 16th to hand, and as regards the “Xtra.” I may say that I consider it an excellent all-round machine. For night riding and general use on our Canadian roads, I do not suppose its equal for comfort and safety can be found, and it has proved itself as fast as the ordinary wheel on the road.

Yours truly,

S. M. LLOYD,

Manager Bank of Montreal,
Goderich, Ont.

From **Mr. Robt. Tyson, Osgoode Hall, Toronto, Canada:**

I have been for some time intending to write and tell you how my 48-in. “Xtraordinary” suited me. I decided on the size and style after trying other safeties (?) bicycles. What I needed was a safe, easy and comfortable road machine. I have got it now. I would not exchange my 48-in. “Xtra” for any other bicycle or tricycle that I know of. A wheelman who tried it for a few miles has christened it the “Perfect Roadster,” and that is my estimate of it. The special qualities about it are—ease of propulsion under difficulties, such as uphill, head winds or rough roads; ease of mounting and dismounting, the saddle being so near the ground; and good steering. The point of not having far to lift yourself when mounting is an important one, and saves much fatigue. There is more work about the frequent mounting and dismounting of a high bicycle than some wheelmen realize. I am also able to get a very satisfactory speed out of the machine.

WM. PAYNE, - - LONDON, ONT.

TELEPHONE 687.

"SPECIAL" APOLLO AND SINGER SAFETIES.

These Safeties are fast driving the ordinary bicycle out of the market. Ordinary bicycles will soon be a thing of the past. These complete Safeties have been well tested on all kinds of roads, and have proved a great success. (Particulars, see following pages.)



SINGER "APOLLO" SAFETY.



THE "SPECIAL" SINGER SAFETY.



MINIATURE SAFETY.



THE "SINGER" SAFETY.

WM. PAYNE,

-

LONDON, ONT.

DESCRIPTION

"SPECIAL SINGER SAFETY:"

This Safety has been designed especially to supply those who require a very light machine. Having submitted it to severe trials during the last three months, we are able to *personally recommend* it most confidently. Every point has been carefully revised where it appeared to be capable of improvement, and we believe that in the *exact* form it is made it is practically *perfect*. It is very strong, comfortable and easy running, and may be relied upon for strength. Its details should be noted.

SPECIFICATION.—30-in. driving wheel speeded 60-in., 26-in. front wheel, best $\frac{3}{8}$ -in. tires, hollow steel forks, steel fellows, Singer **Ball Steering**, Singer direct butt-ended spokes, Singer **Ball Pedals**, and balls to all running parts. Best combined spring and saddle, &c., &c. Enamelled and bright parts plated. Weight without saddle and pedals, about 35 lbs.

PRICE, \$115.

THE "APOLLO" SAFETY:

The "Apollo" we are able to recommend as a thoroughly efficient and complete geared-up safety, which has been well tested on all kinds of roads, and has proved a great success, several thousands having been made since its introduction at the end of 1886. It is extremely rigid, has *perfect* chain adjustment, adjustable handles and saddle, powerful brake, comfortable footrests, &c.

SPECIFICATION.—30-in. wheels speeded to 54-in. or 57-in. (51-in. and 60-in. to order), $\frac{3}{8}$ -in. tires, ball bearings to all running parts except pedals, weldless steel tube frame, handle-bar and forks, guard to both wheels and to chain, brake, footrests, lamp-holder, best combined saddle and spring, spanner, coned pedals, &c., &c. Enamelled, and with parts plated.

PRICE, \$100.

"SINGER'S SAFETY:"

The "Singer" Safety is of the very highest quality, having a specially strong and rigid arrangement of framework. Since its introduction at the end of last season it has given the highest satisfaction to all its riders, which are now very numerous. We *strongly recommend* this cycle as a thoroughly strong roadster of moderate weight.

Specifications and Price same as "Apollo."

"MINIATURE SAFETY:"

Designed to meet the requirements of young riders. Good and strong Safety.

SPECIFICATION.—24-in. wheels, $\frac{3}{4}$ -in. tires, adjustable coned bearings throughout, back and front forks best wrought iron, wheel and chain guards, brake, footrests, lamp-holder, good saddle and spring, rubber pedals, spanner and oil-can. Handle-bars and hubs plated, remainder enamelled black.

WM. PAYNE,

—

LONDON, ONT.

TELEPHONE No. 697.



SINGER'S "CHALLENGE."



"APOLLO" BICYCLE.

SINGER'S "CHALLENGE:"

All ball bearings, ball pedals, detachable handle-bar, *Otto* tires. All bright parts plated.

PRICE, \$90.

"BRITISH CHALLENGE:"

A thoroughly reliable roadster. Without doubt it has no equal. Fluted steel forks, double ball bearings, ball pedals, *direct butt-ended spokes*, 20-in. back wheel, front fork rake 3 inches, *Otto* tires to both wheels, detachable handle bar, with Brooks' patent tension saddle.

PRICE, \$100.

"MINIATURE CHALLENGE:"

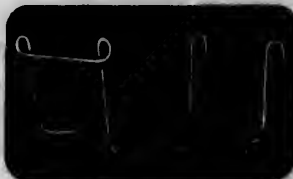
Strong wheel for boys, direct butt-ended spokes, plain, bearings all enamelled black.

PRICE, FROM \$30 TO \$40.

"MINIATURE" TRICYCLE:

Suitable for riders from nine to fourteen years of age.

PRICE, \$30.

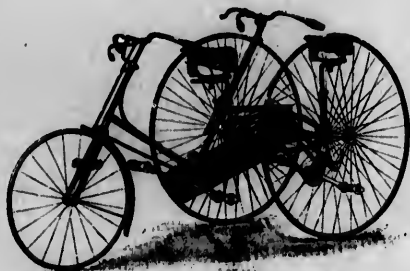


The "Perfect" Luggage Carrier, complete, with strap.

PRICE, \$1.00.



"MINIATURE" TRICYCLE.

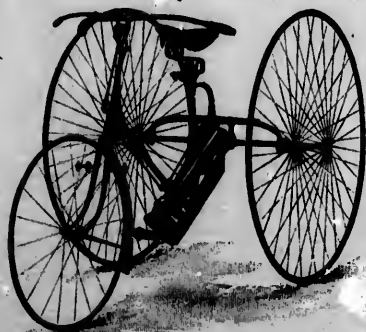


"S.S." TANDEM.

For particulars see Singer Catalogue enclosed. Price on application.



THE "S.S.S." TANDEM.



"S.S.S. No. 2."

Price, &c., on application.



SPECIAL "S.S.S."



AMERICAN TRICYCLE.

For girls from 10 to 14 years.

PRICE, \$32.



THE "CHALLENGE" SPOKE ADJUSTER

Will adapt itself to direct spokes of any gauge.

PRICE, 75c.



IMPROVED BRACKET FOR BOTTOM CHAIN-WHEEL AND DETACHABLE CRANK.

It will be seen on reference to the illustration that this Bracket has many advantages over the old type. Instead of having to adjust two bearings (which ought always to be perfectly adjusted *relatively to each other*) *one single adjustment only is necessary*. This is effected on the same principle as our well-known "British Challenge" bearing, and cannot possibly get out of order. The side strain is practically *nil*, as the chain-wheel is "dished," and the teeth are almost directly over one row of balls. The distance between the two rows of balls is greater than in the usual form of bracket, without increasing the width of tread.

This bearing is very firm and yet perfectly free, and it is a great improvement on any other bearing in existence. It is applied to most of our tricycles.

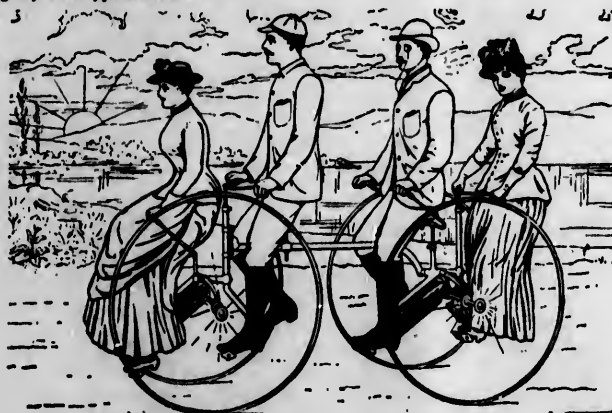
The detachable crank, shown in the illustration, is used on nearly all our cycles. A detachable crank is an absolute necessity, especially on roadsters, and this crank, which has been used by us since 1876, has proved itself to be the only good detachable crank.

N. B.—All my Bicycle and Tricycle Wheels will be built with direct butt-ended spokes. Tangent spokes and hollow rims only made to order, but are not recommended.

WM. PAYNE, London, Ont.

VICTORIA * TANDEM

This machine is made capable of carrying any number—from one to twenty riders, and is readily convertible to suit any lesser number than the maximum for which it is built. There are no idle wheels, every one being driven. *Victoria is the fastest and safest cycle in the world on the road or track, not excepting any other type of machine.*



THE VICTORIA TANDEM.

In the tests of the ten-in-hand *Victoria*, undertaken by the *War Office*, at *Aldershot*, some of which were extremely severe, the machine invariably came off with flying colors. As a racing cycle, with four riders, it covered a quarter-mile on the Coventry track in 39 seconds, and the full mile in 8 min. 43½ sec. time. This time has not been approached by any other heavy roadster cycle.

Special Catalogues mailed on application for the Victoria.

WM. PAYNE,

TELEPHONE 697.

LONDON, ONT.



SINGER'S DETACHABLE HANDLE-BAR.

With which all our 1887 cycles are fitted (except "Miniatures")

This bar is made of a single tube or rod, and besides being *light* and *neat*, is *absolutely as reliable as a permanently fixed bar*.

If damaged by accident, repairs are rendered easy and much less costly than in the case of a fixed bar. Many other advantages are self-evident to cyclists.

All our Detachable Bars are *interchangeable*, so that any bar can be exchanged for one of different pattern if required.



HANDY TOOL BAG.

Price, \$1.50.



HANDY TOOL BAG.

Price, \$1.50



SINGER'S "CHALLENGE" PEDAL.

(PATENT.)

This was designed with the object of raising the foot clear of the centre of the pedal, without sacrificing its light appearance. The blocks of rubber are forced through recesses in the pedal, and require no fixing. The pedal is very elastic, and vibration is thereby absorbed.

Price, \$10.



THE SINGER PEDAL.

(WITH SQUARE RUDDERS.)

Manufactured by Singer & Co., Coventry. Price, \$10.



(FRONT VIEW.)



(BACK VIEW.)

"KING OF THE ROAD" LAMPS.

A full line of Accessories always in stock. Any article required, and not on list, description and price will be given on application. Repairing neatly and promptly attended to.

WM. PAYNE, London, Ont.

