



A GUIDE OF  
DOS AND DON'TS

The  
Ordinary  
For All (1870-1910)

## BICYCLES

### INTRODUCTION

THE BICYCLE WAS ONE OF THE MOST COMMON METHODS OF PERSONAL TRANSPORTATION IN THE 19TH CENTURY. IT'S LIGHT WEIGHT AND EASY MANEUVERABILITY GAVE ITS RIDERS MORE FREEDOM AND SPEED. DUE TO THE SOCIOECONOMIC SITUATION OF THE VICTORIAN ERA, THIS FREEDOM WAS ONLY ACCESSIBLE TO A SMALL COMMUNITY. THIS GUIDE AIMS TO BROADEN THE USAGE OF THE ORDINARY BY PROVIDING SOLUTIONS TO THE HINDRANCES THAT PREVENT A LARGE PORTION OF THE POPULATION FROM UTILIZING THIS MACHINE. UNABLE TO CHANGE THE PRICE AT WHICH THESE BICYCLES WERE AVAILABLE, THIS GUIDE WILL FOCUS ON MAKING THE PRODUCT MORE ACCESSIBLE IN TERMS OF USABILITY. BY RE-EVALUATING THE DESIGN CHOICES MADE BY MANUFACTURERS AT THE TIME AND DRAWING INSPIRATION FROM THEIR SUCCESSES, THE GUIDE WILL PROVIDE ALTERATIONS TO BE MADE AND TECHNIQUES TO BE USED TO ALLOW WOMEN OF THE ERA TO RIDE.

### HISTORY

THE 1870S SAW MANY ADVANCES IN THE TECHNOLOGY SURROUNDING THE WHEEL. INCREASED METALLURGY ABILITY ALLOWED MANUFACTURERS TO SHIFT TO HOLLOW FRAME TUBES WHICH REDUCED THE WEIGHT OF THE BICYCLES SIGNIFICANTLY. THIS REDUCTION ALLOWED THEM TO INCREASE THE SIZE OF THE FRONT WHEEL, WHICH MADE THE RIDE MUCH SMOOTHER. THE LARGER WHEEL SIZE ALSO MEANT AN INCREASE IN GROUND AREA COVERED WITH EACH PEDAL, MAKING THESE BICYCLES FAR FASTER THAN THEIR COMPETITORS IN THE MARKET.

#### MODELS AVAILABLE IN THE MARKET

##### 1. THE ORDINARY (PENNY FARTHING)

A. ORDINARY BICYCLE - COVENTRY MACHINISTS - 1870 (SINGLE SPEED)

B. MARSCH & KRETZSCHMAR SAFETY STAR- MARSCH & KRETZSCHMAR - 1887 (TWO SPEED)

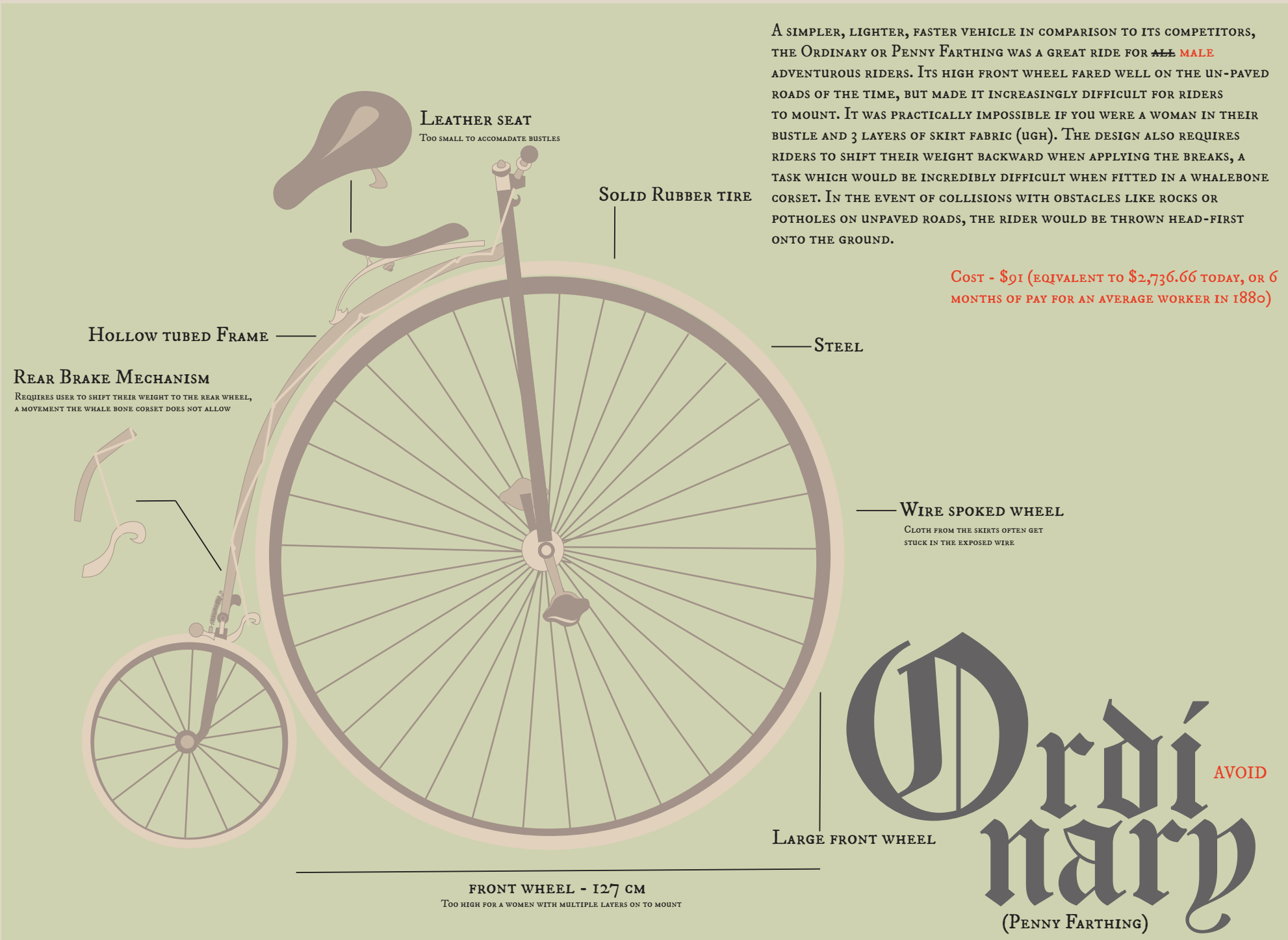
C. AMERICAN EAGLE - EAGLE BICYCLE MANUFACTURING CO.- 1889 (DETACHABLE TOE CLIPS)

##### 2. THE TRICYCLE

A. STANLEY ROYAL SALVO - 1880 (TWO-SPEED, HAND BREAK)

B. ANTELOPE TRICYCLE - 1884 (BRIDLE-ROD STEERING LINKAGE)

C. COLUMBIA TRICYCLE- POPE MANUFACTURING - 1888 (HEAVY SHOCK RESISTANCE)



A SIMPLER, LIGHTER, FASTER VEHICLE IN COMPARISON TO ITS COMPETITORS, THE ORDINARY OR PENNY FARTHING WAS A GREAT RIDE FOR ~~THE~~ MALE ADVENTUROUS RIDERS. ITS HIGH FRONT WHEEL FARED WELL ON THE UN-PAVED ROADS OF THE TIME, BUT MADE IT INCREASINGLY DIFFICULT FOR RIDERS TO MOUNT. IT WAS PRACTICALLY IMPOSSIBLE IF YOU WERE A WOMAN IN THEIR BUSTLE AND 3 LAYERS OF SKIRT FABRIC (UGH). THE DESIGN ALSO REQUIRES RIDERS TO SHIFT THEIR WEIGHT BACKWARD WHEN APPLYING THE BREAKS, A TASK WHICH WOULD BE INCREDIBLY DIFFICULT WHEN FITTED IN A WHALEBONE CORSET. IN THE EVENT OF COLLISIONS WITH OBSTACLES LIKE ROCKS OR POTHOLES ON UNPAVED ROADS, THE RIDER WOULD BE THROWN HEAD-FIRST ONTO THE GROUND.

COST - \$91 (EQUIVALENT TO \$2,736.66 TODAY, OR 6 MONTHS OF PAY FOR AN AVERAGE WORKER IN 1880)

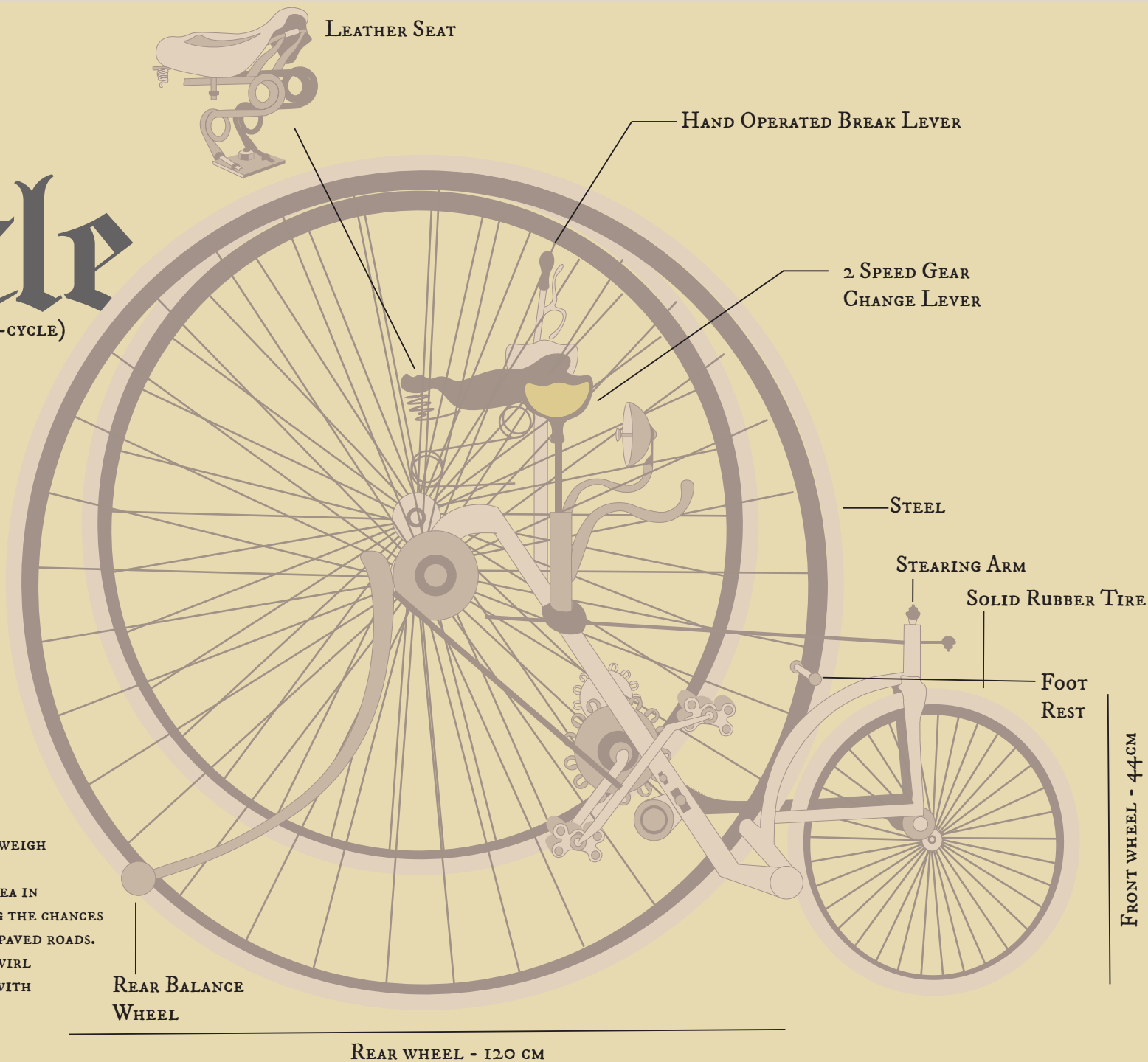
# Ordinary AVOID nary (PENNY FARTHING)

# Tricycle

(OMNI-CYCLE)

USE, BUT WITH CAUTION  
 ALSO ONLY IF YOU ARE RICH BECAUSE IT  
 COST £265.0 AT THE TIME  
 (EXQILENT TO £38,188.09 TODAY)

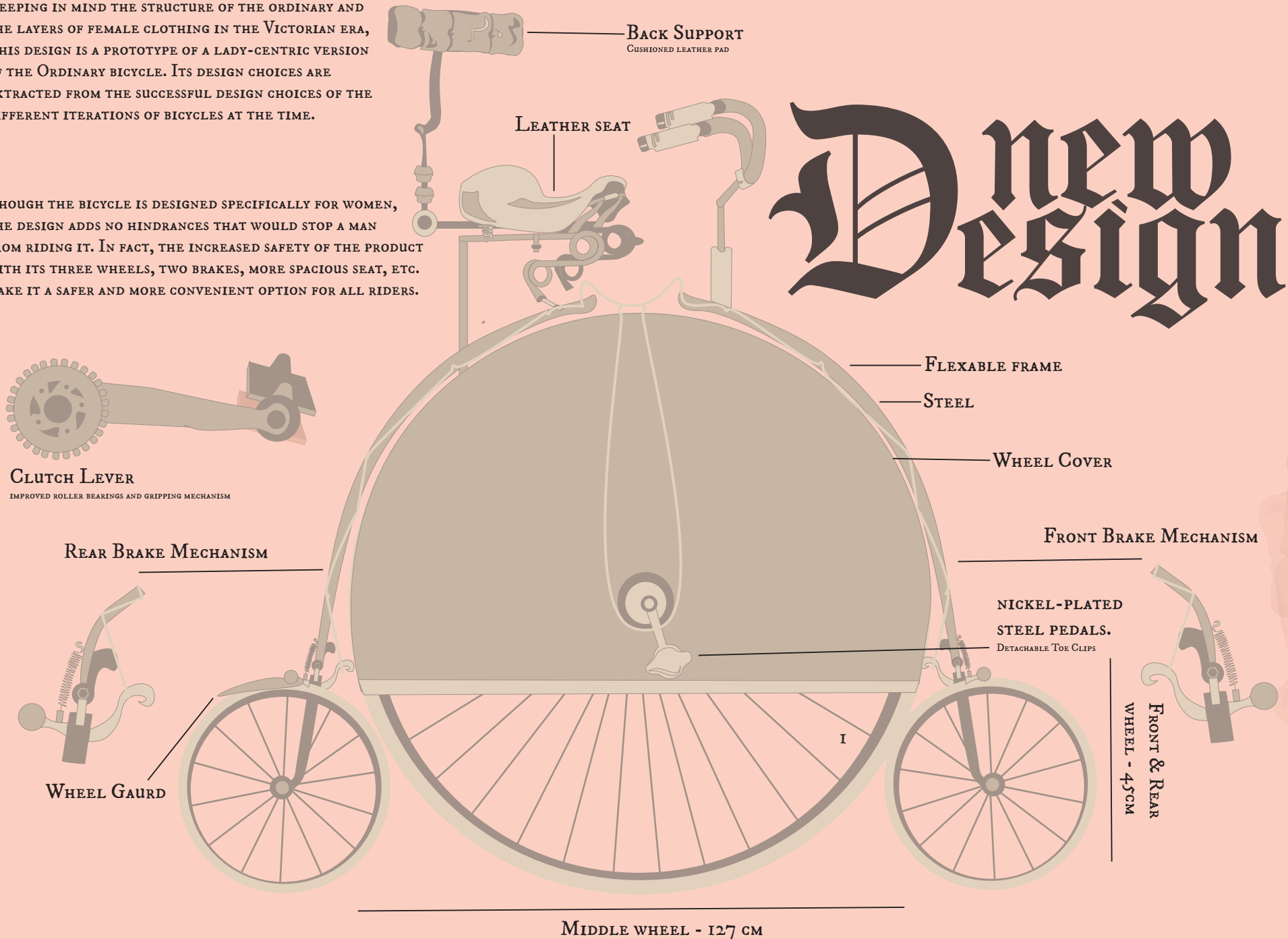
THE TRICYCLE OR 'SAFETY' CYCLE WAS A GREAT ALTERNATIVE TO THE ORDINARY. ITS PLACEMENT OF THE SEAT BETWEEN THE WHEELS MADE IT POSSIBLE FOR WOMEN IN SKIRTS TO RIDE (YAY! AN IMPROVEMENT ALREADY). ITS TWO-SPEED TECHNOLOGY ALSO ALLOWED RIDERS TO GO UP HILLS (CAN IT GET ANY BETTER THAN THIS?) HOWEVER, GIVEN ITS STRUCTURE IT WAS QUITE HEAVY, REACHING 101 LBS AT ITS LIGHTEST MODEL, WHEN THE ORDINARY WEIGH ONLY 40 LBS. THE USE OF TWO WHEELS ALSO INCREASED ITS SURFACE AREA IN CONTACT WITH THE GROUND, INCREASING THE CHANCES OF UNWANTED COLLISIONS WITH THE UNPAVED ROADS. ITS INABILITY TO MOVE BACKWARD OR SWIRL INCREASED THE CHANCES OF COLLISION WITH OBSTACLES.



KEEPING IN MIND THE STRUCTURE OF THE ORDINARY AND THE LAYERS OF FEMALE CLOTHING IN THE VICTORIAN ERA, THIS DESIGN IS A PROTOTYPE OF A LADY-CENTRIC VERSION OF THE ORDINARY BICYCLE. ITS DESIGN CHOICES ARE EXTRACTED FROM THE SUCCESSFUL DESIGN CHOICES OF THE DIFFERENT ITERATIONS OF BICYCLES AT THE TIME.

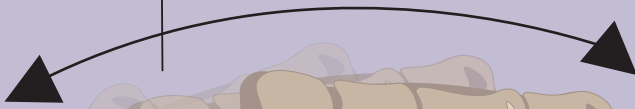
THOUGH THE BICYCLE IS DESIGNED SPECIFICALLY FOR WOMEN, THE DESIGN ADDS NO HINDRANCES THAT WOULD STOP A MAN FROM RIDING IT. IN FACT, THE INCREASED SAFETY OF THE PRODUCT WITH ITS THREE WHEELS, TWO BRAKES, MORE SPACIOUS SEAT, ETC. MAKE IT A SAFER AND MORE CONVENIENT OPTION FOR ALL RIDERS.

# D new Design



**BACK SUPPORT**  
ROTATABLE BACK REST

INSPIRED BY THE BROADWALK TRICYCLE (1880) SEAT BACKREST. WOMEN OF THE TIME WORE CORSETS MADE OF WHALE BONES WHICH REDUCED MOVEMENT AND MADE IT HARDER TO LEAN FORWARD. A BACK-REST WOULD REDUCE THE STRAIN ON THEIR BACK AND IMPROVE THEIR POSTURE.

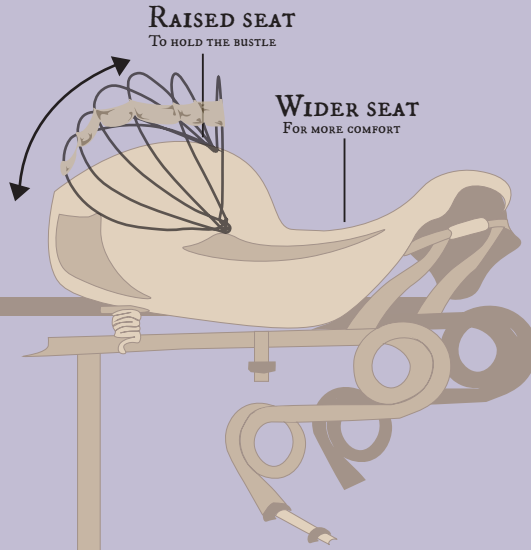


FINAL POSITION

**Seat**

**RAISED SEAT**  
TO HOLD THE BUSTLE

**WIDER SEAT**  
FOR MORE COMFORT



INITIAL POSITION

AN ORDINARY BICYCLE IS MOUNTED FROM THE BACK, HENCE THE BACKREST NEEDS TO BE ROTATABLE, SUCH THAT THE RIDER CAN MOUNT THE CYCLE AS USUAL AND THEN MOVE THE REST INTO POSITION.

**Wheels**

INSPIRED BY THE UNKNOWN TRICYCLE OF THE 1890S (ONE BIG WHEEL IN THE MIDDLE, TWO SMALLER ONES IN THE FRONT AND BACK, ALL IN LINE). THE LINEUP PROVIDES MORE STABILITY TO THE STRUCTURE AND ALLOWS FOR A LARGER SEAT WHILE STILL MAINTAINING THE ICONIC BIG WHEEL FROM THE ORDINARY.

**WHEEL COVER**

PREVENTS THE SKIRT FROM TANGLING IN THE SPIKES

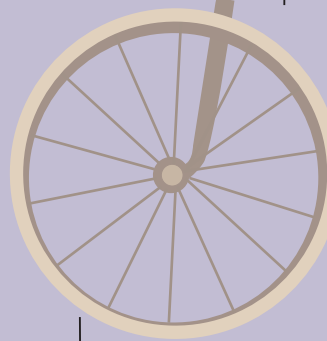
MIDDLE WHEEL - 127 CM

**RUBBER TIRE**

25 MM

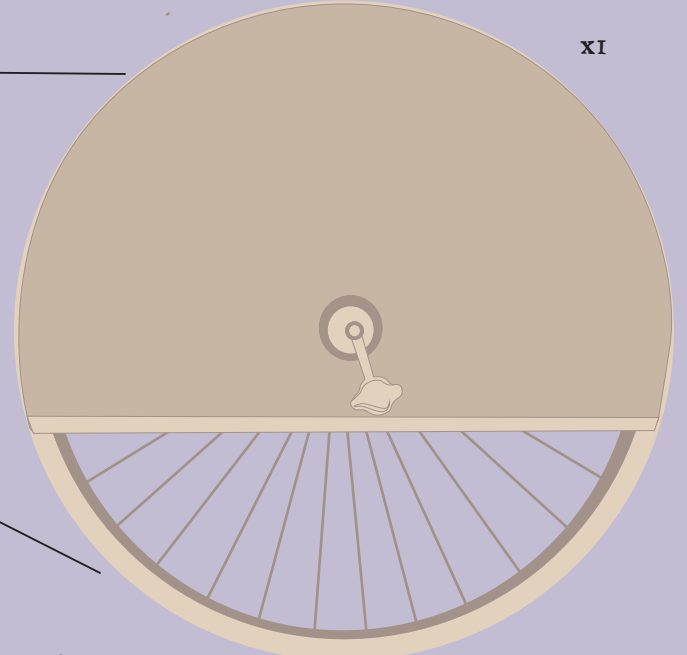
FRONT & REAR  
WHEEL - 45 CM

x2



**RUBBER TIRE**

40 MM



x1

THE TWO SMALLER WHEELS ARE WIDER TO HELP SUPPORT AND EVEN OUT THE WEIGHT OF THE SEAT AND TIRE COVER. THE MIDDLE TIRE IS THINNER (25 MM) SO THAT WHEN THE COVER IS ATTACHED, IT REMAINS WITHIN THE 40MM WIDTH (ANY THICKER AND PEDDLING WOULD BE OBSTRUCTED).

THE WHEELS ARE PLACED IN LINE RATHER THAN IN A TRIANGULAR STRUCTURE (AS IN THE TRICYCLE) TO ENSURE FLEXIBILITY IN THE MANEUVERS.

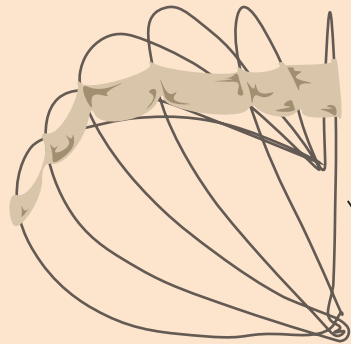
TIRES ARE MADE OF STEEL AND COVERED WITH RUBBER (THEY FOLLOW THE GENERAL DESIGN OF THE TIME)

## CLOTHING

## INTRODUCTION

IDEALLY, THE RIDER WOULD WEAR PANTS, AS THEY ALLOW INCREASED MOBILITY AND REDUCE THE CHANCES OF ACCIDENTS. HOWEVER, THE GUIDE UNDERSTANDS THAT IT IS IMPOSSIBLE TO CHANGE FASHION FOR A PRODUCT, AND A MORE VIABLE SOLUTION TO DESIGN A PRODUCT AROUND THE FASHION. KEEPING THE FASHION TRENDS OF THE 1870S-1900S IN MIND, THE BICYCLE WAS ALTERED. TO INCREASE SAFETY, CERTAIN CHANGES HAVE BEEN MADE TO THE OUTER LAYER OF THE ATTIRE WHICH CAN BE WORN IN PLACE OF PRE-EXISTING SKIRTS. A SIMPLE ADDITION TO THE WARDROBE ALLOWS WOMEN TO ENJOY THE EXPERIENCE OF RIDING THE ORDINARY WITHOUT HAVING TO FORGO THEIR STYLE. THE INNER LAYERS REMAIN THE SAME, ALLOWING RIDERS TO EASILY CHANGE BETWEEN THEIR DAY ATTIRE AND THEIR RIDING ATTIRE WITHOUT ADDITIONAL HELP.

THE MOST COMMON FASHION OF THE VICTORIAN ERA WAS MARKED WITH THE BUSTLE, A STRUCTURE WORN UNDER THE SKIRT TO INCREASE THE VOLUME OF THE ATTIRE FROM THE BACK. AN UNDERSKIRT WAS THEN ADDED ON TOP TO EMPHASIZE THE RUFFLES. THIS WAS THEN ORNAMENTED WITH AN OUTER LAYER SKIRT, THE PIECE OF CLOTHING THIS GUIDE SEEKS TO REPLACE. THE UPPER PORTION OF THE OUTFIT REMAINS INTACT.

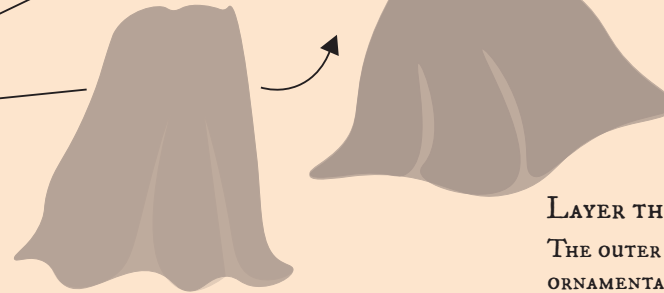
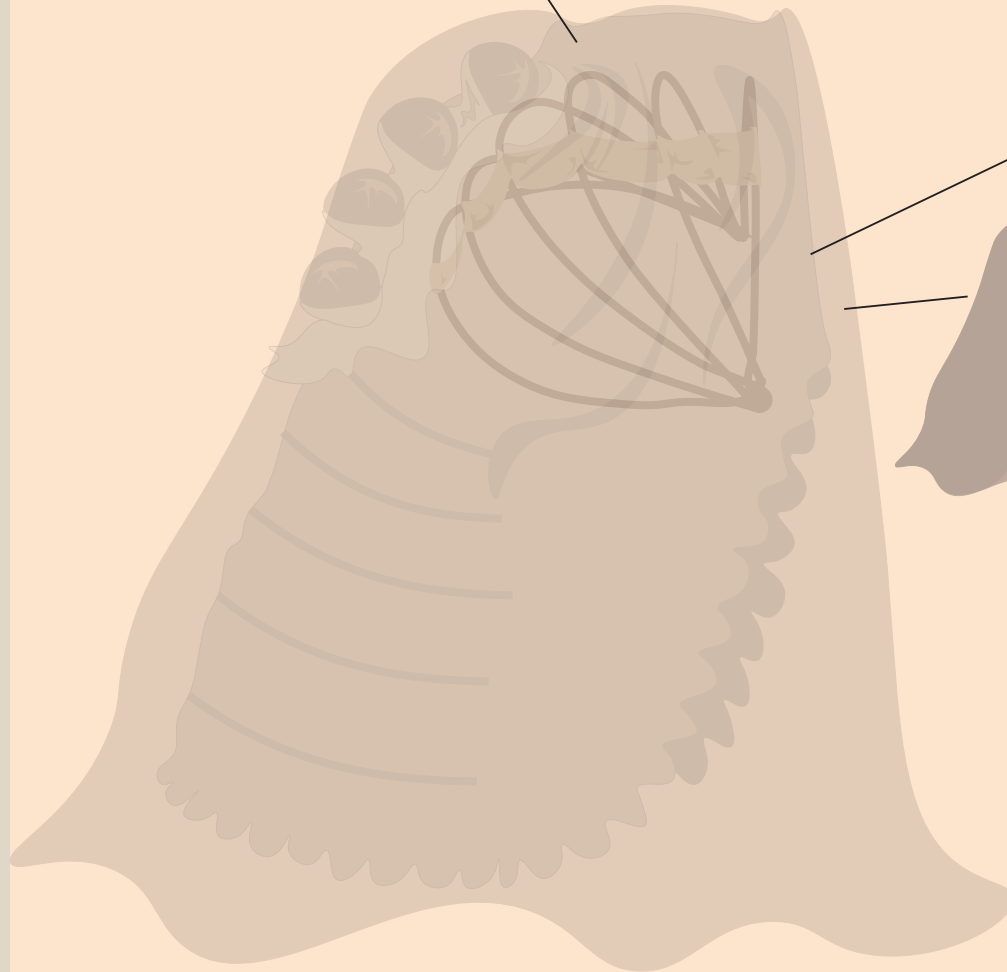
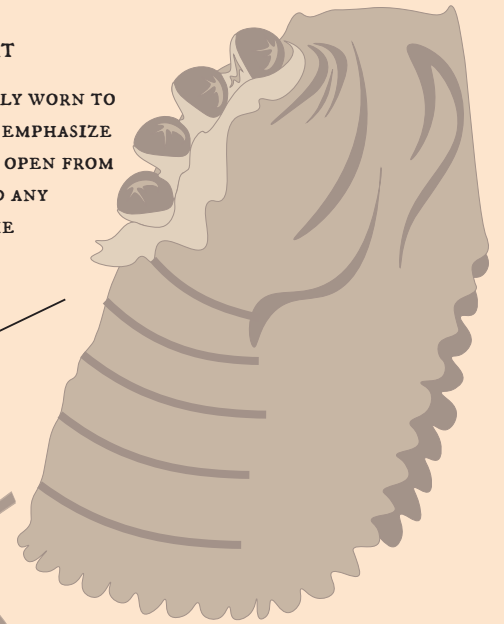


### LAYER ONE - BUSTLE

A REPLACEMENT TO THE CAGE CRINOLINE, THIS FOLDABLE STRUCTURE HELD THE BACK PLEATS OF THE DRESS IN PLACE. THE 'NEW PHANTOM' BUSTLE, PATENTED IN 1884, FEATURED A CONVENIENT PIVOT, ALLOWING THE STEEL WIRES TO COLLAPSE WHEN THE WEARER SITS DOWN AND OPENS UP AGAIN WHEN RISING. THIS FEATURE WOULD BE CONVENIENT WHILE RIDING THE BICYCLE AS THE BUSTLE COULD FOLD AND REST ON THE HIGHER END OF THE SEAT AT THE BACK WHILE THE RIDER COMFORTABLY SAT ON THE LOWER PORTION.

### LAYER TWO - UNDERSKIRT

THE UNDERSKIRT WAS TYPICALLY WORN TO ADD LAYERS TO THE SKIRT AND EMPHASIZE THE RUFFLES. AS THESE WERE OPEN FROM THE FRONT, IT WOULD NOT ADD ANY ADDITIONAL RESTRAINTS TO THE RIDER. THE METALLIC WIRES ON THE BOTTOM HALF WERE COLLAPSABLE.



### LAYER THREE - OUTER SKIRT

THE OUTER LAYERS WERE TYPICALLY THE MOST ORNAMENTAL. THEIR FULL COVERAGE WOULD BE A HINDRANCE TO THE RIDER. REPLACING THIS WITH A FLARED WRAP-AROUND THAT WAS WIDE ENOUGH TO SIT OVER THE TIRE COVER WOULD ALLOW THE RIDER TO MOUNT, RIDE, AND DISMOUNT THE CYCLE WITHOUT ANY WORRIES. THE TWO SLITS WOULD ALLOW THE RIDER'S KNEES TO BEND WITHOUT BEING OBSTRUCTED.

# Clothing



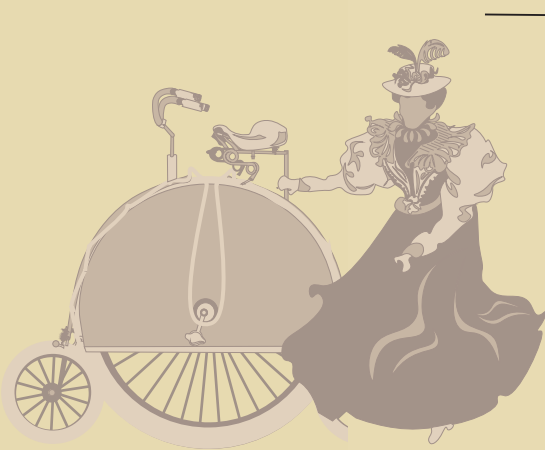
## How To Ride

## INTRODUCTION

THE ORDINARY'S HIGH WHEEL MAKES THE RIDING PROCESS MORE COMPLICATED AND RISKY. A STEP-BY-STEP GUIDE ON THE MOUNTING, RIDING, AND STOPPING PROCESS FOLLOWS.

CAUTION: THESE PROCESSES ARE RISKY AND MAY LEAD TO INJURIES. IT IS ADVISABLE TO PRACTICE THESE IN SOFTER, SAFER SPACES WITHOUT OBSTACLES AND TRAFFIC WHILE TRAINING. WEAR PROTECTION AROUND THE HEAD, ELBOWS, AND KNEES.

# Mounting



1  
HOLD ONTO THE SEAT ROD



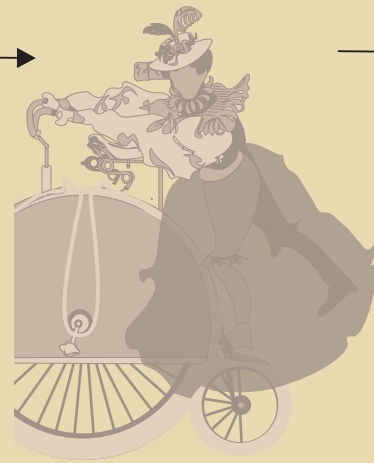
2  
LIFT LEFT LEG



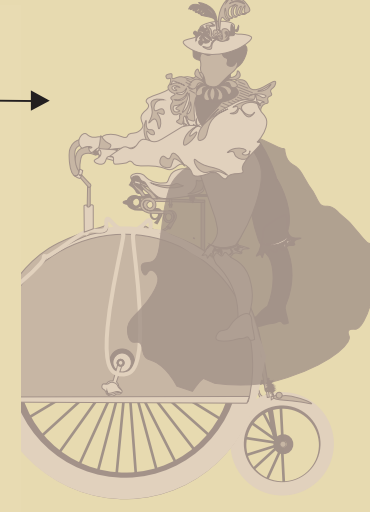
3  
PUSH THE BICYCLE FORWARD



4  
PLACE LEFT FOOT ON FOOT REST



5  
PUSH OFF THE GROUND



6  
PULL YOURSELF UP



7  
SIT, PEDDLE AND ENJOY

THE BICYCLE'S LARGE MIDDLE WHEEL MAKES IT IMPOSSIBLE TO MOUNT WHILE IT IS STATIONARY. HENCE THE BICYCLES NEED TO BE PUT INTO MOTION WITH A FORWARD THRUST TO START. THE TWO SMALLER WHEELS IN THE FRONT AND THE BACK MAKE THIS BICYCLE MORE STABLE THAN THE ORDINARY, BUT IT STILL REQUIRES A SIMILAR MOUNTING METHOD.

