



Bulletin # 3

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📖 Riding 🌿 Collecting 🌿 Restoring 🌿 Research 🌿 History 📖

Restoration

The complete restoration of an old bike can be a major undertaking, but the results will provide a great deal of extra pleasure from the standpoint of appearance as well as better riding performance. Riding performance, in particular, is more than an added frill; it has much to do with *safety*, and the old high wheels can be *dangerous machines*. If a tire comes off, if any critical part breaks, if a wheel locks—these can become a disaster, particularly if the rider is moving at high speed.

So above all, make certain that your machine is mechanically sound. If you have the capability there is much you can do yourself, but if not, there are good craftsmen available who can carry out any reconstruction or restoration you might require, up to and including the complete building of a bike on a replica basis.

There are a few hints that may be helpful for the do-it-yourselfers, however, and a set of data sheets is appended for many parts and services as may be required.

When you first acquire your new high wheel or safety bicycle, check out the working parts very carefully. If you want to ride it as is, there are a few important points to test before climbing aboard. First, the most important parts of any bike are the wheels. They should turn freely without rubbing against the fork at any position. And they should be reasonably true so that they do not wobble badly as they turn. The latter is a function of the state of repair and adjusting of the spokes. Check the data sheets (Bulletin #3a) for available help.

Let's assume that the wheels are reasonably true and free—there are many other important items to check before your first flight. One of these is the tires. If these are the original rubber, chances are that new tiring will be badly needed, and both tire rubber and tiring installation service are available.

How are the handlebars? Does the front wheel turn freely and without obstruction (including any hindrance from your knees)? Check over the backbone and the front and rear forks. Are they mechanically sound so that they will support your weight? Check the bicycle's tubing

(handlebars, forks, backbone) by tapping with anything metal such as a key ring. If the tubing is sound (i.e. intact) a decided ring is heard. However, if the sound is dead, check for cracks or rust on the inside due to condensation.

The foregoing are also good check points when you are looking over a bike for possible purchase. Your best bet, if you want an early ride, is to have someone with experience check the machine for you, to be assured that *all* safety conditions are met.

Of course, the seat should be capable of supporting you without undue discomfort. And as a final safety check, the machine should have a brake, particularly if you are a beginner. On a high wheel, however, *USE THE BRAKE GINGERLY*. Applied with the least bit too much pressure, the brake will slow the wheel enough to cause you to do a "header," that is, go over the top of the wheel. The expert can get by with backpedaling to stop, but this can take some practice. There are some machines, like the American Star, that *MUST* have a brake, as they are free-wheeling and have no means of back pedaling with their ratchet drive mechanism. The Springfield Roadster is another machine with this same limitation.

A complete restoration job is a different matter, and you can have the entire job done by an expert or you can undertake it yourself, at least in part. For those who want to tackle it, a number of separate bulletins have been worked up, and these describe many of the restoration steps from the viewpoint of others who have had the same experience. The following bulletins are currently available:

List of Wheelmen Bulletins

1. Advice on Buying a High Wheel Bicycle
2. Learning to Ride the Ordinary
3. Restoration
 - a. Restoration Data Sheet
4. Mounting Tires on High Wheels
5. The Bicycle Uniform from Head to Foot
 - a. Current Wheelmen State Uniforms
6. Bicycle Bugles and Bugling
7. Nickel, Bright and Gunblue Finishes
8. How to Organize a Wheelmen Meet
 - a. Sample Feature Story for Release Approximately Two Weeks before event
 - b. Follow up Sample Feature Story for Release Approximately One Week before event
 - c. Using a Sag Wagon
9. Parade Riding
10. Making Leather Saddles for the Ordinary
- 11a. Wood Finishing
- 11b. Rim Straightening (Wood)
- 11c. Rim Bleaching (Wood)
12. The Story of Bicycling in America
13. Research Your Antique Bicycles before You Restore Them. You'll be glad you did!
14. Rules of the Road for OHWT and Century Tours
15. The Duties and Opportunities of a Captain
16. Membership Prospectus
 - For Administrative Use Only
17. Membership Application Forms
 - For Administrative Use Only
18. Wheelmen Roster
 - One Copy provided with Each Membership
19. Restoring Your "Boneshaker" (Velocipede)
20. Bicycle Literature Collecting
21. The Evolution of the Bicycle: Significant Events
22. Fancy Ladies Skirt Guard: Method for Attaching
23. Topical World Stamps: Cycling
24. Preparation for the Century (Physical Fitness)
25. A New Method of Tiring, and a New Machine
26. Index to The Wheelmen Magazines
27. • NOT USED •
28. Organizing a Wheelmen Century Run
29. Learning to Ride the Star and Eagle Bicycles
30. Researching Bicycling History through Newspapers
- ** List of 1900 Different Brands Manufactured Prior to 1900
- ** The Wheelmen Handbook

After you have fortified yourself with the proper bulletins, you are ready to begin. The first nightmare you will become involved with is the complete dismantling of the old, rusty machine. This is always a difficult job, as there are probably nuts, bolts, and screws that have not been turned for 80 or 90 years. Remember that threads were not as precise in the old days, and metallurgy was not as advanced so that the old castings and wrought parts may be flimsy by today's standards. Be very careful not to break them.

On many of the old machines, however, the workmanship was outstanding, and most manufacturers had fine craftsmen in their employ. Treat the parts with care at any rate, as you can spoil a complex old part rather easily by exerting too much force with a wrench. Penetrating oils and Liquid Wrench are valuable aids, and closed or box wrenches should be used wherever possible. Open adjustable wrenches can slip, and will quickly destroy the corners of old nuts and bolts. This is also important when you are reassembling later, particularly if the parts are carefully finished or nickel plated.

The biggest single job in terms of hours of effort are the wheels and spokes. If it is at all possible, these should never be dismantled, but should be refinished as is, even though the finishing is slower. Spokes are generally threaded into the wheel hub on the old high wheels, and they can snap off if you stare at them too hard. These threads, though, are critical in trueing the wheel, so the spokes may be turned when necessary.

When your machine is dismantled, your cleaning, replacing, bending, filling, grinding, polishing, plating, and other operations can begin.

Refer to your bulletins, keep track of all parts, and if you can't handle the job, call in the experts. Good luck in your many, many happy hours of effort.