



## Update— Faucets for Recreation Sites

### FAUCETS TO AVOID

Many different kinds of faucets are used in recreation sites, although some of them are not suited for such use. Simple, inexpensive faucets—such as the common hose bib—cause public use problems (such as the hookup of trailers). Further, these can waste water, cause mud wallows, and be a health hazard because of both a tendency to retain dirt and filth in their threads and, if not properly fitted with an anti-backflow device, they allow back-siphoning. Some faucets are so complex as to be impossible to repair in the field. Others have hidden interior water traps below the frostline to protect them from freezing; these traps cannot be easily drained.

### ACCESSIBLE FAUCETS

Faucets with design features (fig. 1) that allow "access" to people with limited strength and/or dexterity of the hands have become important criteria for selecting faucets for use in all public facilities. There are two control features (fig. 2) that distinguish accessible (sometimes referred to as "barrier-free") faucets from all other types. The control or mechanism must be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate the control shall be no greater than 5 lb.

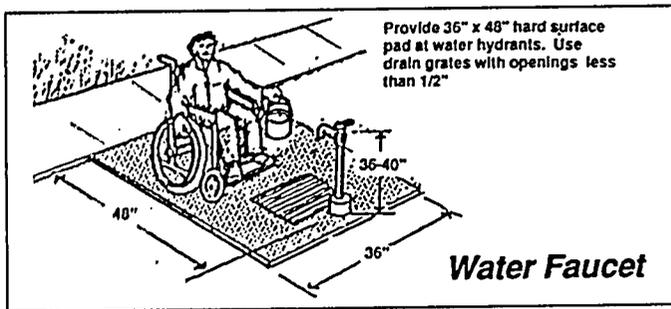


Figure 1. Accessibility standards for water faucets.  
[Reprint from "DESIGN GUIDE for  
Accessible Outdoor Recreation"]

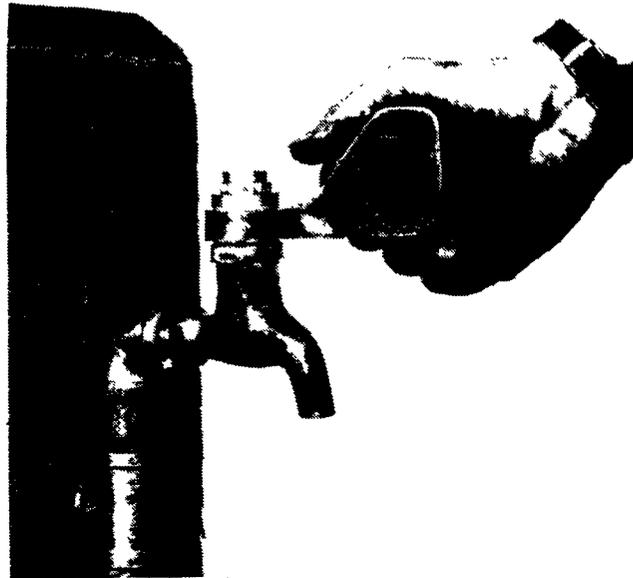


Figure 2. Self-closing faucet, operable with one hand and no more than 5 lb of force.

San Dimas Technology and Development Center (SDTDC) personnel conducted a market search of faucet manufacturers to find models suitable for use in recreation sites. This search was limited to major manufacturers whose products could be expected to be available Service-wide. This Tech Tips gives the specifications and prices of those faucets deemed available and suitable.

### Features

The Haws, model 6252 EH, bib faucet (fig. 3) is one product suited for installation on recreation site hydrants. It has the following features:

1. Accessibility for a majority of users is provided by a paddle-type lever handle requiring only 2 lb (min.) to 3.5 lb (max.) force to actuate the valve.
2. Self-closing valve that conserves water.
3. Plain outlet which does not have hose threads that can harbor bacteria and dirt.
4. Vandal-resistance, when compared to other faucets. (The lever handle is attached to the stem with an adjustable retaining nut and cotter pin that are concealed beneath a cover cap secured with Allen-head set screw.)

5. The valve washer is replaceable—the seat is not removable—and it can be repaired in the field.

6. Unfinished, rough brass exterior surface for aesthetic appearance at outdoor recreation sites.

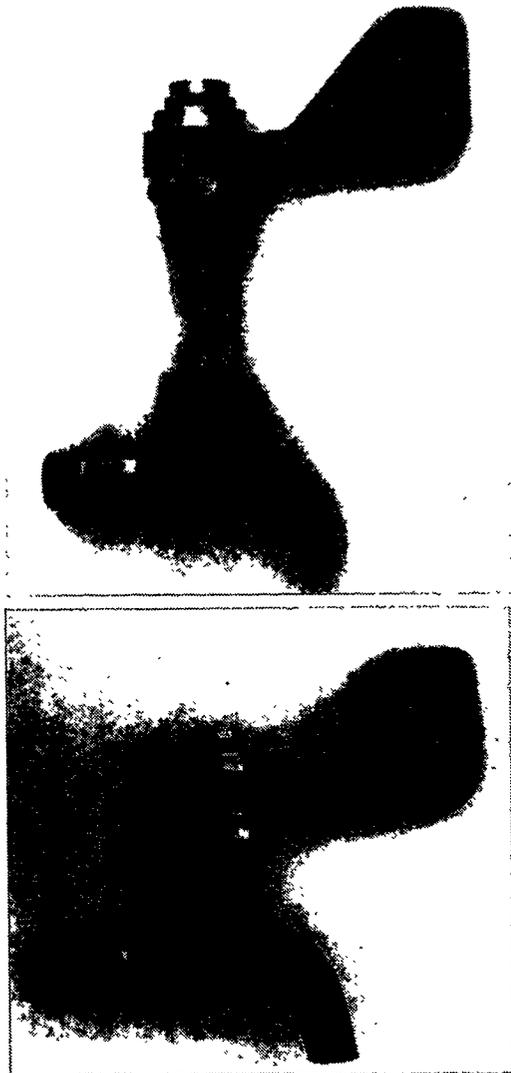


Figure 3. Accessible faucet, Haws model 6252 EH.

The features of this faucet derive from its physical specifications, which include:

- Solid brass housing
- 1/2-in NPT male inlet; plain (no hose thread) outlet
- Self-closing, spring valve
- Water line pressures from 30 to 90 psi are required (although actual tests show the faucet is operable at line pressure down to 20 psi)
- Vandal-resistant, paddle-shaped (3-in length) lever handle with an Allen screw secured cover cap that conceals the handle-retaining nut
- Non-chromed, rough brass finish.

#### Ordering Information

The model 6252 EH faucet is available from the Haws Drinking Faucet Co. and its authorized distributors for

a suggested list price of \$111 each, FOB factory, less 25 percent discount on Government purchases, based on quantities of up to five units. This price is subject to change; lower prices are available for larger quantity orders. For further information, contact:

Haws Drinking Faucet Company  
Attn.: Customer Service Dept.  
P.O. Box 1999  
Berkeley, CA 94701  
Telephone: 415/525-5801.

#### FAUCETS PRESENTLY IN USE

Two decades ago, in February 1969, an *Equip Tips* (ED&T 1423) on faucets for recreation sites was issued by the San Dimas Center. At that time (before accessibility was a requirement), two self-closing faucets (fig. 4) were featured, the Chicago Faucet Co. No. 12-633-244-VP-CP and the American Standard No. R4442. [Note: The Chicago unit was incorrectly cited as being "#12-244-633-VP-CP" throughout the 1969 document, which should now be discarded as being obsolete.] The two faucets had similar features and were among the most suited, using early 1969 criteria, for installation on recreation site hydrants. Many of these faucets were installed at Forest Service campgrounds, and are still in use today. They both have a valve seat and washer on a removeable cylinder for easy repair (fig. 5). Note that the Chicago valve closes with the water flow, while the American Standard valve closes against the water flow.

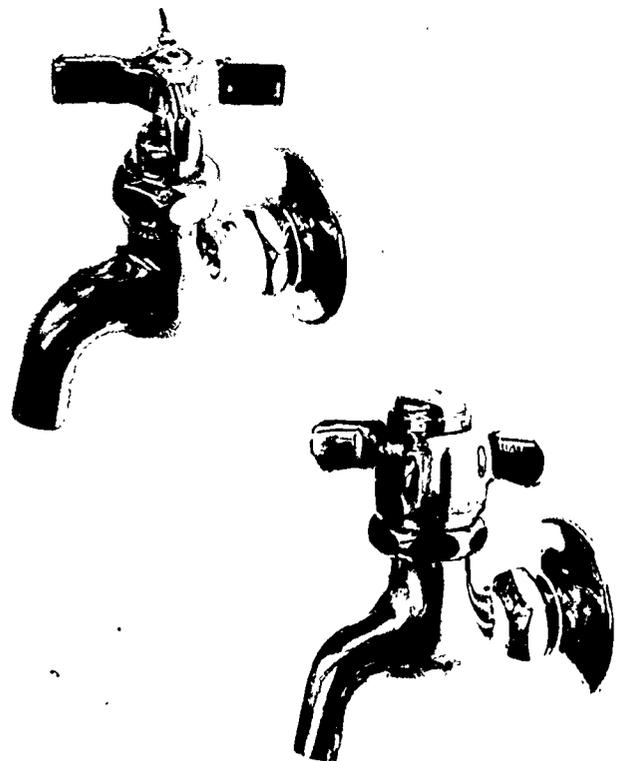


Figure 4. Chicago No. 12-633-244-VP-CP, now designated as No. 12-633-244-VPH (upper photo), and American Standard No. R4442, no longer available (lower photo).

Chicago Faucet Company  
 2100 S. Nuclear Drive  
 Des Plaines, IL 60018  
 Telephone: 312/694-4400.

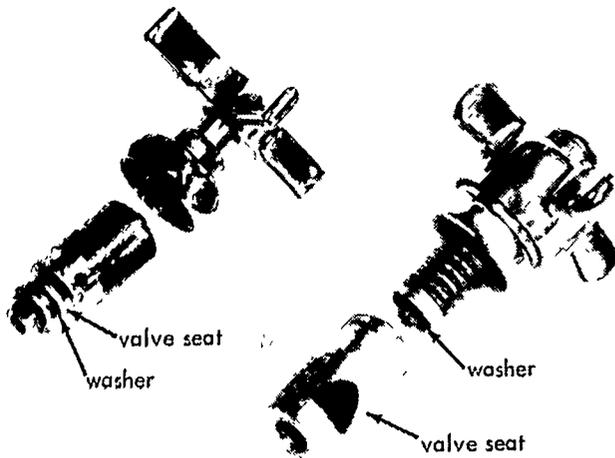


Figure 5. Chicago (left) and American Standard (right) valve cylinders.

The material that follows provides updated information to assist maintenance personnel in acquiring repair parts for the two faucets shown in figure 4.

### Chicago Faucet

There are two repair kits (No. 883 and 884) for the Chicago faucet currently available for \$243.10 and \$61.90, respectively. The kits differ only in the number of parts in each kit. Chicago uses interchangeable parts in their faucets, and a wide variety of different kinds of faucets can be obtained by use of their coded numbering system. The model No. 12-633-244-VPH is translated as follows:

- "12"—Single sink faucet with polished chromium plated finish, 1/2-in flanged female inlet, plain outlet spout
- "633"—3-in diameter, four-arm metal cross handle; a lever handle is standard and may partially accommodate some persons with a disability
- "244"—Self-closing valve
- "VPH"—Vandal-proof handle, with Allen-head screw in the handle.

A 1/2-in male inlet counterpart of this faucet is designated No. 4-633-244-VPH.

Model 12-633-244-VPH is available with a standard, straight lever handle. This handle has a short length, which reduces the leverage and may require more than 5-lb force to actuate the valve. The Chicago Faucet Co. manufactures a 4-in, wrist-blade, lever handle for valves; however, the manufacturer does not recommend its application on its self-closing faucet, due to the excessive weight of the handle and its effect on the self-closing valve spring.

**Ordering Information.** Contact Chicago's main office for local distributors, parts lists, and current prices of repair kits, etc.:

### American Standard Faucet

The American Standard Faucet No. R4442 is no longer available; however, repair parts are available. The cap that covers the handle-retaining nut and cotter pin of the American Standard faucet works loose quite easily (fig. 6). We have noticed this cap missing on many R4442 faucets at recreation sites. This may not be a serious problem operationally, since the handle will be still securely held in place by a nut and cotter pin not easily removed with a screwdriver or knife. However, the faucet is unsightly without the cap; and the sharp protruding edges of the nut and the spread points of the cotter pin may lacerate a small hand. For these reasons, we recommend that R4442 faucets be periodically inspected for missing cover caps and replacements made promptly whenever necessary. Note that the caps can be made vandal-resistant by adding an Allen-head set screw at the top of the handle. However, this modification requires special tools and personnel skilled in use of such tools.

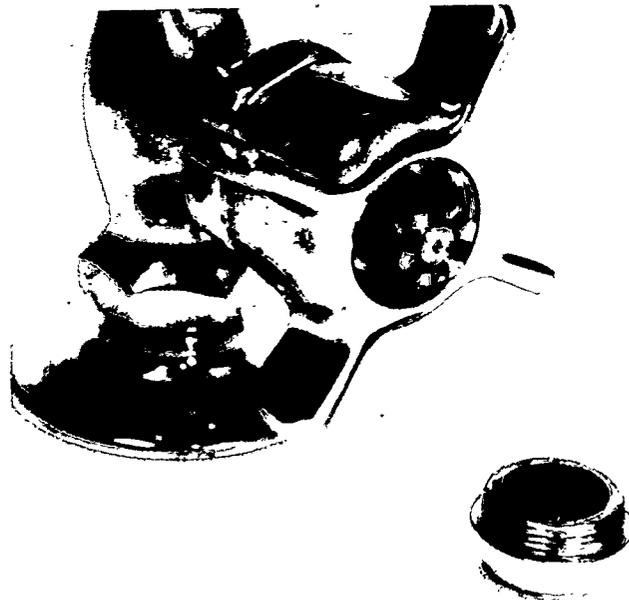


Figure 6. Handle for American model R4442 faucet with its cap off.

**Ordering Information.** Repair parts for the American Standard faucet are available through American Plumbing Partsmaster, Inc.:

American Plumbing Partsmaster, Inc.  
 153 Mercury Circle  
 Pomona, CA 91768  
 Telephone: 714/594-7278.

Model R4442 faucets still in serviceable condition can be made accessible with a replacement handle. The

Sunroc Corp. is a distributor of a 4-in long, wrist-blade handle (fig. 7) that is interchangeable with the model R4442 handle from American Standard. The Sunroc handle has a polished chromium finish; the cap is available as a separate part. (Note: This handle is not vandal-resistant. The cap can be easily removed, but can be made vandal-resistant by adding a Allen-head set screw, similar to the Haws model 6251.)

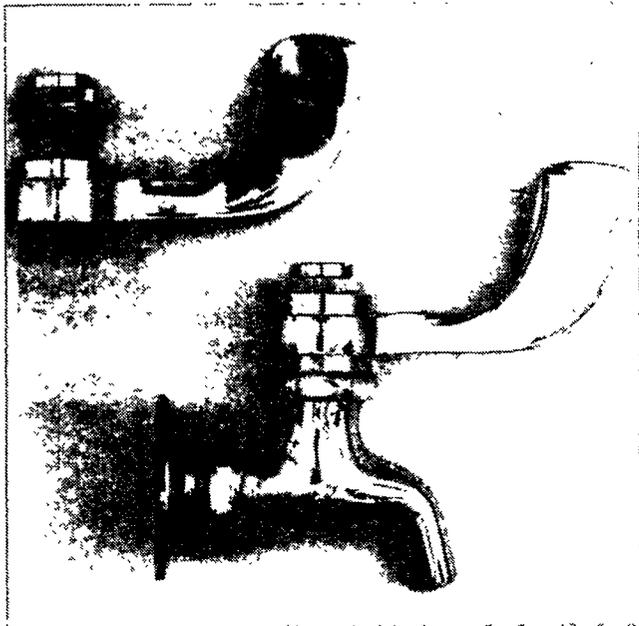


Figure 7. Sunroc's 4-in, wrist handle and cap, in polished chromium finish (left) and American Standard No. R4442, fitted with Sunroc wrist handle (right).

#### Ordering Information

Sunroc's handle is part No. FA 3030; it has a suggested list price of \$30 each. The cap is part No. FA 03008; suggested list price is \$5.75 each. For further information, contact:

*Sunroc Corporation  
Attn.: Sales Office  
Route No.452  
Glen Riddle, PA 19037  
Telephone: 215/459-1100.*

#### SERVICE FAUCETS

More and more it is becoming common practice to place (in addition to the usual self-closing faucets) a removable-handle, hose bib faucet on recreation site hydrants. This allows use of the hose bib by administrative personnel for cleanup or maintenance purposes, while discouraging either the hookup of recreation vehicles to the water

system or the public use of the hose bib for potable water supply—a practice which may be somewhat hazardous to health. In some applications, this type of faucet functions as a vacuum relief valve to evacuate water from supply lines during system winterization.

The Chicago No. 293 (1/2-in inlet) or No. 387 (3/4-in inlet) "sill" faucets are excellent for this application. The Chicago No. 293 faucet (fig. 8) has a 1/2-in flanged female inlet and a 3/4-in hose thread outlet, with a lock shield cap and removable tee handle. This faucet is listed at \$32.70 each when polished chrome-plated or \$27.70 each for rough chrome-plated. A repair kit for the Chicago No. 293 and 387 faucets (quatum valves) is No. 276, which has a list price of \$68.70. (Ordering information for the Chicago Faucet Co. has already been presented.)

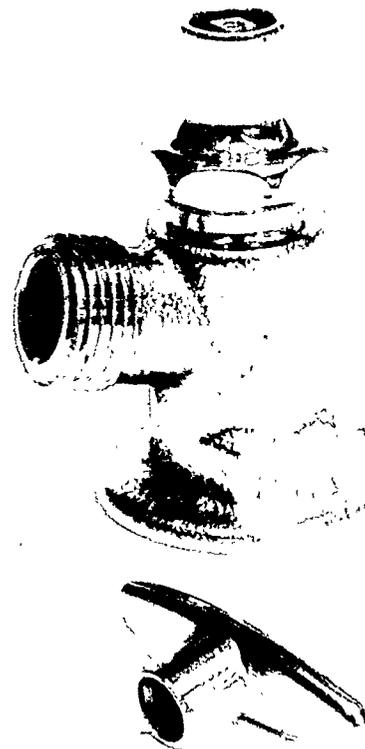


Figure 8. Chicago No. 293 sill faucet.

Many communities have enacted regulations requiring vacuum breaker/backflow preventers be permanently affixed to the outlet of faucets (hose bibs). This type of product is available through local hardware or plumbing suppliers. The Woodford Manufacturing Co. has vacuum breaker/backflow preventers (fig. 9) available for application in both freezing and nonfreezing areas.

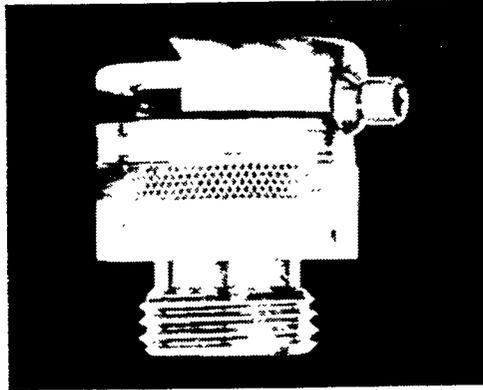
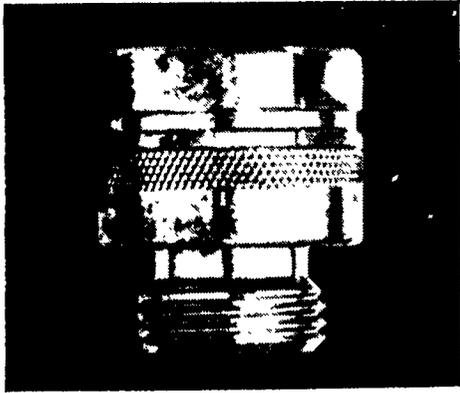


Figure 9. The Woodford vacuum breaker/backflow preventers—model 34H, for nonfreezing areas (left) and model 34HD, for freezing areas (right).

Specifications for these vacuum breaker/backflow preventers include:

- Construction—brass and stainless steel
- Inlet—3/4-in standard female hose thread
- Outlet—3/4-in standard male hose thread
- Finish—Plain brass or chrome plated.

#### Ordering Information

Model 34H has a suggested list price, each, of \$6.90 for brass or \$7.60 for chrome. Model 34 HD is \$8.45, brass; \$9.20, chrome. For further information, contact:

Woodford Manufacturing Company  
Attn.: Sales Department  
P.O. Box 888  
Colorado Springs, CO 80901  
Telephone: 719/574-1101.

---

For additional information contact: Recreation Program Leader, San Dimas Technology & Development Center, 444 E. Bonita Ave., San Dimas, Ca. 91773 Phone: 714-599-1267; FTS: 793-8215; FAX: 714-592-2309; DG: WO7A