May 1986

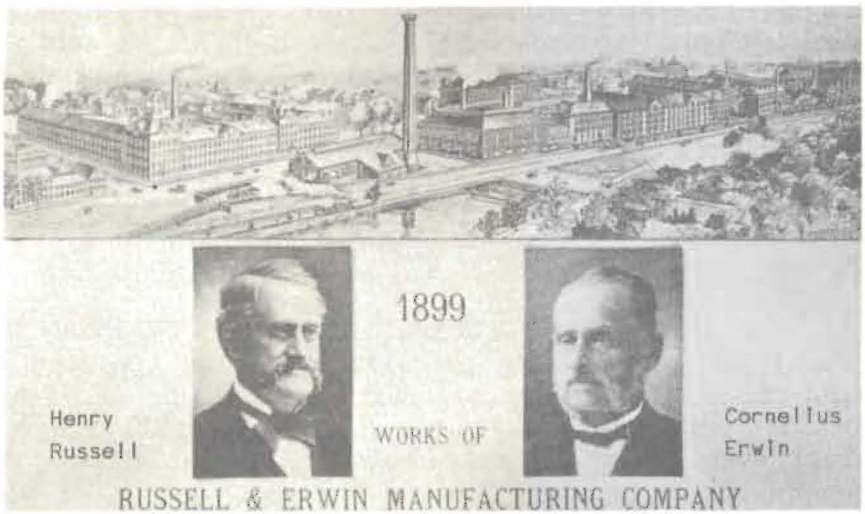
The Doorknob Collector

Number 18

"FRANKFORT"
RUSSELL & ERWIN

Pioneers In The Hardware Industry

Excerpts from "Early Locks and Lockmakers in America"
By Thomas F. Hennessy



In January 1839 Frederick Stanley and his two younger associates, Henry Russell and Cornelius Erwin became partners in a hardware manufacturing firm named Stanley, Russell & Co., in New Britain, Conn. In 1841 Smith Matteson purchased Stanley's share of the business. Matteson died in 1845 and in January 1846 the name was changed to Russell & Erwin and is the oldest name in continuous use in the hardware industry in America. In 1853 the famous diamond trademark was introduced, which became a symbol of quality.

After the Civil War Russell & Erwin continued to grow and prosper. Sales and warehouse facilities were expanded to New York, Philadelphia, Boston, Baltimore, Chicago, San Francisco and London, England.

In the early 1870's Russell & Erwin acquired the Metallic Compression Casting Company's patented processes and designs. The work of George Barkentin, Rodolphe Christesen and Ludwig Kreuzinger during this period is hailed as a major breakthrough in the production of ornamental hardware and in shaping the future of Russell & Erwin and in inspiring the industry as a whole.

The 1899 catalog of Russell & Erwin was probably the largest hardware catalog ever assembled and consisted of 1000 pages. Half of the catalog featured builders' hardware and the remaining pages had about every item of hardware made at the time.

In 1902 Russell & Erwin Mfg. Co. and P & F Corbin Co. merged into a corporation called the American Hardware Corporation. Each affiliate retained their respective management and product identity. In 1908 a copyright was taken out for the "Russwin" trademark which had been coined back in 1875.

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CORBIN
"VINCENNES"

SCHOOL

ROCOCO

ROCOCO - ROCAILLE - LOUIS XV

Although French art had already taken a decided turn toward Rocaille (Rococo) when Louis XV in 1715 succeeded his illustrious predecessor, the earlier works of the period, (the so-called Regence) continue to show mostly balanced designs and it was not until 1725 that "Rococo" held undisputed sway. About ten years later it reached the height of eccentricity and became the reigning fashion in art throughout Europe.

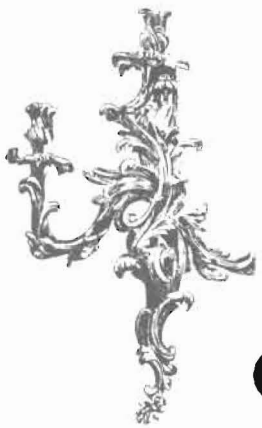
Contrary to the earlier Louis XV, the Rocaille (Rococo is the Italian name for the school, which has come into general use) is eminently erratic in outline and arrangement, has no pure classical features and in its capricious extravagance and elaborate vagaries reflects with great truth the tastes and inclinations of a generation of relaxed morality and gracious, courtly manners.

Rococo is pre-eminently a decorative style. Its utter disregard for constructional principles is limiting its use in architecture mostly to inside decoration. The chief characteristics are a preponderance of the irregular shell ornament, the alternately inverted scroll, different kinds of lattice work and diapers and flowers lightly trailing over and through the ornament.

"MUNICH"
CORBIN

Rocaille, meaning the rocks, shells, seaweed and what-not-of-the-beach, is remindful of the foam of the sea with the swift turns and curves in its lines.

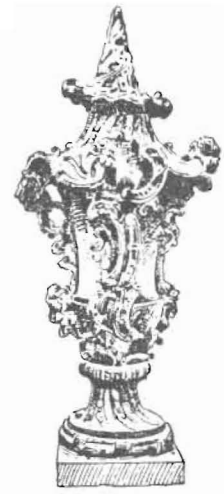
The vogue has been to decry the Rococo style, but there is abundant evidence that this is due to the horrendous imitations of the beautiful work so manifest in the best of the French examples.



"HEART KNOB"
RUSSELL & ERWIN

"MAJESTIC"
READING

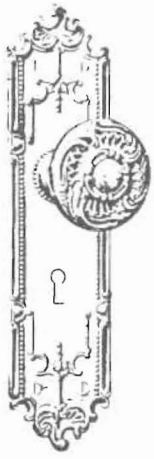
CANDELABRUM



TERMINAL VASE

BRACKET
CANDLESTICK

"ST. DENIS"
CORBIN



"LUTETIA"
CORBIN

INK-STAND

"EULALIA"
READING

"STUTTGART"
RUSSELL & ERWIN

"MARNE"
CORBIN

"NUREMBERG"
RUSSELL & ERWIN

"ODEON"
CHICAGO

"FONTENOY"
YALE & TOWNE

REFLECTIONS ON COLLECTING DOORKNOBS

By Florence Jarvis

"People collect the darndest things !" How often have you heard that? I have a friend who collects giraffes, my mother collects buttons. We read about these wierd collections in almost every Antique Trader. But we are special --- we collect DOORKNOBS!

It was back in 1968, I was walking my dog past a victorian mansion being torn down in our block. This was before people were concerned about preservation in our city. (I live on Heritage Hill, now a designated historic neighborhood.) Well, on the ground was a door with a loose knob on it. It was a lovely J201 (VDA). The next day it was still there - so I took it. Later I found a mercury glass knob in my mother's effects. From then on I looked for knobs at flea markets, antique shops and shows. My friends and relatives gave me all sorts of knobs, usually common mineral, porcelain or jet - occasionally an ornate brass or glass knob.

In 1977 I read of a newsletter about doorknobs in the Antique Trader. George Doyle's name was the reference. Through him I subscribed to the newsletter.

My first emblematic was the cross or church knob. I then found a supurb emblematic at an antique show - it was the Cook County Courthouse. This I later "lost" in a three-way trade with Charlie and Len because I wanted the U.S. Seal and Charlie wanted the Cook County and Len wanted Charlie's lion. Confusing? But we were all happy.

I counted my knobs a while back and there were 494. I have them displayed in glass covered cases, mounted in styrofoam covered with velvet. The cases are piled in a corner of my small apartment, but I ran out of storage space so I decided to sell some knobs to my landlord who was very interested. He owns several houses in the area.

My interest has narrowed down to emblematics, monogramatics, minerals (with lovely colored swirls), glass and porcelain. I will keep a few favorite ornamental brass and bronze knobs.

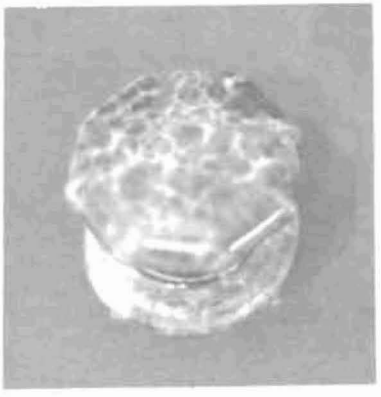
My very favorite knobs are the three paperweights, the U.S. Seal, the U.S. Treasury Seal, The Hummingbird, The Two Birds, the Statue of Liberty and my genuine Bennington. Also a blue, brown and white procelain I got from David Olafsen. Then I prize an ADCA knob by Charlie from brass and a wooden Two Birds carved by Arnie.

Most of my knobs have been obtained at our conventions. Perhaps half have been found at antique shows or outdoor antique markets. I would love a "Doggie". (I would give half of my Social Security check for it), and a State of Michigan seal.

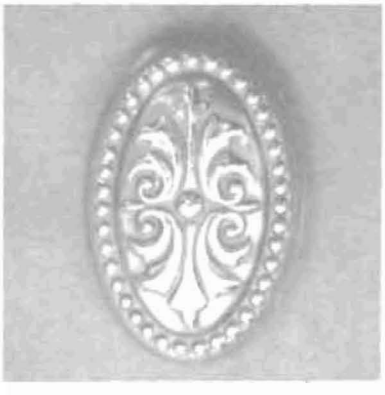
Frankly I am not interested in research, I just enjoy my knobs for their beauty and variety.

BLUE GEM (?)
IN CENTER

BELGIAN BEE



BENNINGTON



FINISHES—HOW PRODUCED

Durability of Finishes—No finish on metal is absolutely permanent, each being subject to gradual deterioration by natural atmospheric oxidation and other factors. Some finishes, however, are more durable than others.

The most durable finishes for builders' hardware are those produced on solid brass, bronze or white bronze in the natural color of the metal, not plated. In this classification would fall the Oil Finishes, Wax Finishes and plain unlacquered Buffed Finishes produced on solid, non-ferrous metals. This plain unlacquered finish naturally tarnishes rather rapidly after installation; consequently it should be hand polished at intervals to preserve its natural color and lustre or left unpolished if it is desired to permit natural aging of the finish. Bower Barff is also a very durable finish if not unduly exposed to the elements.

Plated finishes are satisfactory for interior use if not subject to excessive handling or wear, but few such finishes are suitable for exterior use. Good quality chromium plating on a non-ferrous base, however, will give excellent service on exterior hardware trim.

Finishes plated on steel or iron are the least durable of all, due to the nature of the underlying metal which is subject to relatively rapid oxidation and corrosion.

Listed below are the principal finishes used on builders' hardware and a brief description of how these finishes are produced.

Antique Copper—The article is copper plated, then oxidized and the oxidation brushed off in spots, by means of buffing wheels treated with a fine abrasive. The items are then cleaned and lacquered. Also refer to Page No. 45A for article on "Relieved Finishes".

Bower-Barff is a black rust-resisting finish applied to steel and cast iron only and is not applicable to non-ferrous metals. It is named for two men, Mr. Bower and Mr. Barff, who originally developed the process.

Iron or steel items to be Bower-Barff finished are heated in special furnaces to approximately 1700° Fahrenheit, at which temperature they are cherry red in color. While at this temperature, live steam and volatile hydrocarbon liquids are injected into the furnaces for a period of several minutes. The chemical action of the combined heat, water-vapor and hydrocarbon gases on the iron or steel is such that the surface of the items being treated is oxidized and carbonized and becomes covered and impregnated with a hard, non-porous, grayish-black coating. This seals the pores of the metal and alters the texture of its surface so that it is practically impervicus to moisture. After the parts are removed from the furnaces and allowed to cool, they are dipped in a special oil and wiped off. At this stage they have a bluish-black color which in time becomes practically dead black.

This beautiful black finish will last indefinitely when used under normal conditions on interior hardware trim but is not recommended for use where subject to excessive exposure to the elements or to unusual conditions of moisture.

Bower-Barff finish is more serviceable and generally more satisfactory on cast iron than on wrought steel. This is due to the greater porosity of cast iron, which permits deeper impregnation of the surface carbonization. This finish on wrought steel is quite scaly and consequently is subject to chipping after continued use.

Brass—See following articles on the subjects of "Bright or Buffed Finishes" and "Brushed or Dull Finishes"; also "Electro Plating" on Page 45A.

Bright or Buffed Finishes can be produced on solid brass, bronze or white bronze, or on electro-plated articles.

In the case of solid, non-ferrous metals these finishes are produced by first polishing the items on polishing wheels or belts with abrasives of varying degress of fineness and then buffing them on rapidly revolving cloth buffing wheels which are treated with a buffing composition. This composition is fundamentally a grease base containing a verv fine abrasive. The combined effect of these ingredients is the imparting of a very high lustre and extremely smooth finish to the metal articles so treated. After being thoroughly cleaned, these articles may be either waxed, oil rubbed, lacquered, or left as they are for natural aging.

On electro-plated articles, bright finishes are produced by first polishing and buffing before plating and after plating again buffing with a special composition which improves the color and lustre of the plated coating. From this point they may be either waxed, oil rubbed, lacquered or left for natural aging.

We do not recommend or offer a bright, buffed finish on plated iron or steel.

Bronze—Refer to article above on "Bright or Buffed Finishes", the article immediately below on "Brushed or Dull Finishes" and the article on Page No. 45A on "Electro-Plating".

Statuary Bronze is produced by oxidizing the surface of buffed bronze articles and then scratch-brushing until sufficient oxidation has been removed to obtained the desired color.

Brushed or Dull Finishes such as dull brass, dull bronze or dull nickel are produced by polishing the articles on abrasive wheels, buffing with a special dull finishing compound, then wet scouring with a fine abrasive, such as pumice stone, on a revolving soft brass wire scratch-brush designed for the purpose. Steel items are electro-plated before the buffing and scouring operations.

Cadmium—Refer to article on "Cadmium" on Page 42A.

Among many other uses, cadmium is used as a protective covering for other metals, electrolytically deposited. In connection with builders' hardware, cadmium is most frequently used as an electro-plated rust-resisting coating over iron and steel and is also used on iron, steel, brass, bronze, etc., as a base for the reproduction of certain other finishes such as Old Iron.

Cadmium is not suitable for use as a final finish coating on items subject to handling or wear, such as door knobs, grips, etc. and we do not recommend its use otherwise than as an underlying protective plating.

Copper—Refer to "Antique Copper" above and "Electro-Plating" on Page No. 45A.

Chromium—Refer to article on "Chromium" on Page 42A.

In builders' hardware products chromium is used principally as an electro-plated finish coating over other metals. When properly so applied it produces a hard, durable, rich, tin-white finish that is becoming increasingly popular and in commercial demand is rapidly replacing nickel finishes on many hardware items.

Items to be chromium finished are nickel plated and the chromium applied over the nickel. Not always, but usually, the articles are first copper-plated before the nickel is applied. Great care must be exercised in keeping the work thoroughly clean during all plating operations, especially immediately prior to and during the application of the copper and nickel plates. If the base metal is not thoroughly clean and the copper and nickel plating not of high quality, the copper or nickel, or both, are subject to peeling, and, of course, as they peel, the chromium plate is stripped off also.

Chromium does not adhere readily to iron and steel; so items made of ferrous metals are always first copper plated before the nickel and chromium plates are applied. However, chromium plated iron and steel builders' hardware is none too satisfactory; so we do not recommend its use and do not offer any such items in our line. Chromium plated finishes

FINISHES—HOW PRODUCED, Con't.

are much more satisfactory if produced on a copper-alloy base such as brass or bronze.

For additional information on chromium plating see article below on Electro-Plating.

Electro-Plating is a process whereby one metal is coated with another, electrolytically deposited.

Generally speaking, electro-plating is performed in tanks or plating barrels specially designed for the purpose, which contain a solution or electrolyte of certain chemicals, including a salt of the metal to be deposited, and through which an electric current of proper density is passed. The current density varies with the metal to be deposited, the nature of the articles to be plated and the type of mechanical equipment employed.

The articles to be plated are suspended in the plating solution on copper-alloy metal racks and attached to and kept in contact with the negative electrode by means of hooks on the racks. The work in process thus becomes the cathode or conducting terminal through which the current leaves the plating solution.

To the positive electrode is connected a number of bars or plates of the same metal which is being deposited on the items to be plated. These are suspended in the plating solution at intervals around the inner sides of the tank and form the anode or conducting terminal through which the current enters the solution. Metal pieces designed for this purpose are commonly known as "anodes".

The electric current passing through the plating bath causes the electrolysis or gradual decomposition of the solution (electrolyte), releasing the metal from the metal salt in the solution and depositing it upon the cathode, which is made up of the articles to be plated. Simultaneously, the "anodes" are slowly disintegrated and pass into solution, thus automatically replacing part of the metal that has been extracted from the plating bath.

The plating solution must be maintained within the limits of certain standards. To do this the "anodes" are replaced as required and chemical analyses and tests of the plating bath made at frequent intervals. Chemicals are then added to the solution as indicated by the tests.

A peculiarity of chromium plating is that lead anodes are used—not chromium. The lead does not pass into solution in the plating bath. The chromium metal deposited on the items to be plated is all contained in the plating bath itself and is replaced frequently by the addition of chromic acid, etc., as indicated by analyses and tests. Refer to Page No. 42A for article on Chromium.

Japan—A special black varnish, either glossy or dull, commonly known as Black Japan, is sometimes used as a protective and finish coating for iron and steel items and is the covering usually employed for cast iron lock cases. Japan is applied by dipping or spraying and the articles so treated are then baked in ovens until the japan is properly set and dried.

Lacquer—In order to protect the finish on exposed parts of builders' hardware with a durable, non-porous, colorless covering, most items, except those in oiled, waxed, nickel or chromium finishes, are given a thin coating of transparent lacquer. It is applied by dipping, spraying or brushing, depending upon the nature of the item, and then dried in ovens. This lacquer is a nitro-cellulose product that is basically gun-cotton to which certain gums and solvents have been added.

Nickel—Nickel plating adheres well to copper, brass and bronze but not satisfactorily to iron and steel. It thus becomes necessary to copper plate iron and steel items before applying the nickel plating. Please refer to the articles above on "Electro-Plating", "Bright or Buffed Finishes" and "Brushed or Dull Finishes" for additional information on nickel plated finishes. Also read article on Page No. 43A regarding nickel.

Oil Finishes are obtained by the same processes as "Bright or Buffed Finishes" (see Page No. 44A) up to the point of lacquering, but instead of being lacquered the article is then heated, dipped in paraffin and rubbed down with cloth pads.

Oxidized Finishes—Oxidizing to produce "Statuary" finishes or "Relieved" finishes is accomplished by immersing the metal articles in a chemical bath which has the property of depositing a black coating on the items so treated.

There are several effective formulas for these oxidizing baths and different solutions are used for different types of work. Some solutions function by electrodeposition and others are simply dip washes without electric current.

The net effect of both types, however, is to blacken the hardware so treated. The surface finish of the items is then relieved by brushing, as outlined in the articles on "Relieved Finishes" and "Statuary Finishes" to be found below on this page.

Plated Finishes—Refer to article on "Electro-Plating" elsewhere on this page.

Relieved Finishes—Any finish that is blackened by oxidation and part of the oxidation removed to reveal the natural color of the metal beneath, is called a Relieved Finish.

Our A42 (antique copper) is one type of relieved finish, the oxidation being brushed off (relieved) in spots to reveal the copper plating beneath and thus producing the familiar brownish-black and copper mottled effect.

Another type of relieved finish may be illustrated by our D21 and D31 finishes which are especially adapted to embossed designs. In producing these finishes the articles are oxidized and brushed off (relieved) until the oxidation remains only in the recessed parts of the embossing. The underlying metal is then visible in its natural color, or slightly darker, on the flat surfaces and high points of the ornamentation; while the recessed or depressed portions of the ornamentation remain darkened with the oxidation. This produces a very effective contrast in shading.

Finishes such as our S21 and S31 are applied to articles having sanded surfaces. When oxidized and relieved, the finish on sanded items is considerably darker than the natural color of the metal due to the oxidation remaining in the sand pits after the brushing operation.

Sanded Finishes—Cast metal items to be produced in sanded finishes are polished, but not buffed, and then sand blasted with fine silica sand or steel grit. The sand or grit is forcibly projected against the surface of the articles by air pressure through nozzles in machines designed for the purpose. Sheet metal items need not be polished before the sand blasting operation.

After sand blasting, the items are thoroughly cleaned and finished in the natural color of the metal of which they are made, or electro-plated to produce other finish effects. Refer also to the last paragraph on the subject of "Relieved Finishes" above.

Statuary Finishes—Refer to Page No. 44A for article on "Bronze".

Waxed Finishes are produced by the same processes as "Bright or Buffed Finishes" (see Page No. 44A) up to the point of lacquering, but instead of being lacquered the article is then heated and a special wax preparation applied, thoroughly brushed in, and the surplus rubbed off.

Zinc Plating consists of coating other metals with zinc, electrolytically deposited, for the purpose of retarding corrosion. It is usually applied only to ferrous metals. Zinc is rapidly becoming more popular than cadmium for use as an underlying protective coating.

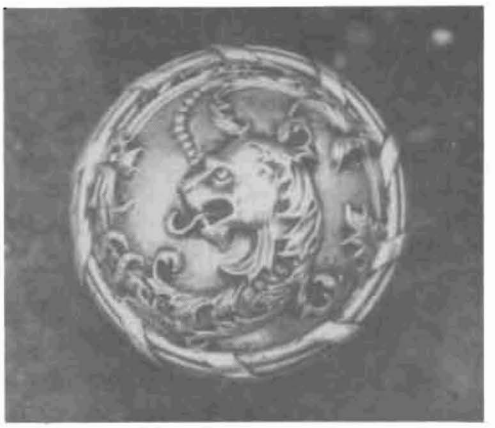
Fred Magnus of Fort Myers Beach, Fla. has featured his collection on local TV shows recently and in January displayed his collection to an appreciative audiance at a meeting of the Philanthropic Educational Organization in Naples.

Maudie Eastwood would appreciate any photos members would want to contribute to the enlargement of the photo archives she began last year: 3900 Latimer Road No. Tillamook, Or. 97141

We are happy to report that Maudie's husband, Norval, is home again after heart by-pass surgery and is doing well with Maudie's T L C.

The Assn. for Preservation Technology will offer a 3-day training course on history, identification, documentation, preservation and reproduction of manufactured building hardware, 1840 - 1920, at Austin Texas, Sept. 29 - October 1, 1986. For more information contact: Training Course Chairman, APT, Box 2593, Austin, Tx. 78768 or call (512) 479-4876

Len Blumin recently acquired this striking knob which is heavily silver plated. Does anyone know about the origin of this beauty?



NEXT ISSUE - CONVENTION DETAILS
AND REGISTRATION
MAKE YOUR PLANS NOW FOR
SEPTEMBER 19-20-21 IN MINNEAPOLIS

Variations on Sargent's "Ekado"

Our sympathies are extended to Lorraine Razor upon hearing of the death of her husband, Darrell, in Nov. 1985, after a long illness.

Darrell was a charter member and our first vice-president. He is remembered as a colorful and enthusiastic personality.

Measured by todays achievement standard of one to ten I would probably rate a six or seven among mankind's earliest inventions. Since I am many times older than Methuselah it is likely that I am the brain child of some prehistoric genius. When I first saw the light of day the wheel was almost taken for granted. Fire, of course, had been around for ages and hand tools were almost old hat.

In my childhood, "to be a farmer" was the aim of all young men and "to marry a farmer" was the aim of every young women. Agriculture was the "in" thing, just as computer technology is today. Wealth was being accumulated and the need for my services became epidemic. I was made and shaped from every material known at the time and I'm afraid any resemblance to my present profile is purely academic. It did not really make any difference to me since my function was simple and I would be a survivor. I perform at the peak of efficiency only in conjunction with a human extremity so when I dream in retrospect I first remember the calloused hands of the first farmers.

Renaissance architecture has always facinated me primarily, I guess, because I always seemed to benefit. The Egyptians decorated me with all manner of serpentine designs, the Romans cast me in gold, glass and marble, the Europeans encrusted me with precious jewels and the Americans improved my mechanics.

The Doorknob Collector

4125 Colfax Avenue South
Minneapolis, Minnesota 55409

Since my basic function is to provide entrance to and exit from many worlds of privacy I have been privy to the secrets of mankind. Not one of the Chaldean kings, not one Pharoah or Caesar ever dreamed that I heard their shameful plans for self-aggrandizement. The monarchs, emperors and presidents which followed shared not only their dreams but also their lascivious moments with me. Down through the centuries I must confess my happiest moments were spent with the Bourgeoisie of the world. Regardless of nationality theirs was the most happy, most joyful, tragic and rewarding lives I ever saw.

When I felt the soft grip of a mother, the firm grip of a father or the inquisitive touch of a child I knew I was needed. Even when the family cat solved my mystery I was content.

By stretching your imagination you might call me privacy, security or guardian but I would prefer that you call me doorknob.

George C. Cook