

TEMPERED COPPER, GOLD AND SILVER

A Revolution in the Manufacture of Silverware, Gold Jewelry, Surgical Instruments, Copper Electrical Equipment, Etc.

The Tempered Ductile Metals Co.

This company has been organized for the purpose of exploiting this wonderful discovery. It has a capital of 1,000,000 shares of the par value of \$1.00 each. The management of the company is in the hands of successful and intelligent men of high standing in Los Angeles. The company has equipped a factory 20x90 feet in Los Angeles for the manufacture of surgical instruments and is already crowded with orders. It will later establish a plant for the manufacture of solid silver cutlery and a large factory for the manufacture of copper castings and electrical equipments. The PROFITS of the business are ENORMOUS and its field is WORLD-WIDE, without the possibility of any COMPETITION whatsoever. The company offers at this time through its fiscal agents, the General Securities Company, 25,000 shares of its treasury stock at 25 cents per share, for the purpose of furnishing the working capital for its surgical instrument plant. This plant has received unsolicited such a large number of orders for its product that its success is already assured. The subscriptions for this stock are coming in rapidly and we urge you to make an early investment so that you may share in the profits of a stock which, **PROFITS THAN BELL TELEPHONE STOCK.** You are co-product. The next offering of stock will be made at 50 cents

TEMPERED

from its increase in value and dividends, will make GREATER daily invited to visit the factory and see for yourself its per share on April 1st.

WONDERFUL UTILITY

Under this process tempered copper will displace brass and bronze in every journal bearing in every railroad and electric car in the world and on every piece of machinery that turns a wheel.

Tempered Sterling Silver

will take the place of ordinary silver in the manufacture of table knives, forks and spoons.

Tempered Gold

will monopolize the manufacture of all classes of jewelry, rings, gem settings, gold pins and surgical instruments. The governments of the world can have their coins tempered to prevent wearing and to stop the making of spurious coins.

Some Endorsements

Los Angeles, California.
Tempered Ductile Metals Co.
Los Angeles, California.
Dear Sir:—Having used and given your Gold Hypodermic Needles a thorough test, I find they have the following advantages over the steel variety: First—No clogging, consequently no wire necessary. Second—No corrosion. Third—Ease of introduction, the largest size passing through the tissue much more readily than the small steel needle. Fourth—It leaves no mark, being aseptic. Fifth—No danger of blood poisoning.
L. G. VAN SOYOC, M. D.
Professor of Gynecology and Official Surgery.

San Francisco, California.
Tempered Ductile Metals Co.
Los Angeles, California.
Gentlemen:—I have used your Gold Hypodermic Needle continuously for the last two months, and find it extremely satisfactory.
Very sincerely,
CAMPBELL FORD, M. D.

DR. R. WERNICK,
Los Angeles, Cal.
201-206 Stimson Bldg.
February 15, 1905.
I have been using gold hypodermic needles manufactured by Mr. Vaughn in Los Angeles for the past two months, and have been greatly pleased with their efficiency and would regret very much if I were compelled to do without them. They do not rust after boiling or after using mercurial salt; their lumen remains the same; they do not break off and can be readily sharpened. Those who are in the habit of using hypodermic needles frequently will certainly appreciate the gold needles. There is no comparison to be made between the steel and the gold needle. The steel needle is simply not in it.
R. WERNICK.

Reference:—Your Banker or Commercial agencies.

MINING



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GOLD BLADES SHARPER THAN STEEL

Factory in Los Angeles Now Marketing Tempered Gold and Copper Instruments

AN industry of very great importance in its probable effect upon the demand for copper has been started in Los Angeles as a result of the discovery by Mr. Z. F. Vaughn of means to temper gold, silver and copper.

Gold surgical instruments, such as knives, hypodermic and suture needles, are now being manufactured here in quantity. The delicate gold blades are as keen as the sharpest razor. Thrown point downward they will stick into a hard table top and stand there quivering.

The Mining Review has made a careful investigation of the plant and the results attained. Samples of tempered gold and copper have been submitted to assayers and by thorough tests have been proved to be gold and copper.

Samples of tempered gold, silver and copper have been submitted to Dr. Julius Koebig of the Los Angeles Chemical and Metallurgical Laboratories. He finds that the claims made by Mr. Vaughn for these tempered metals are fully sustained by the results.

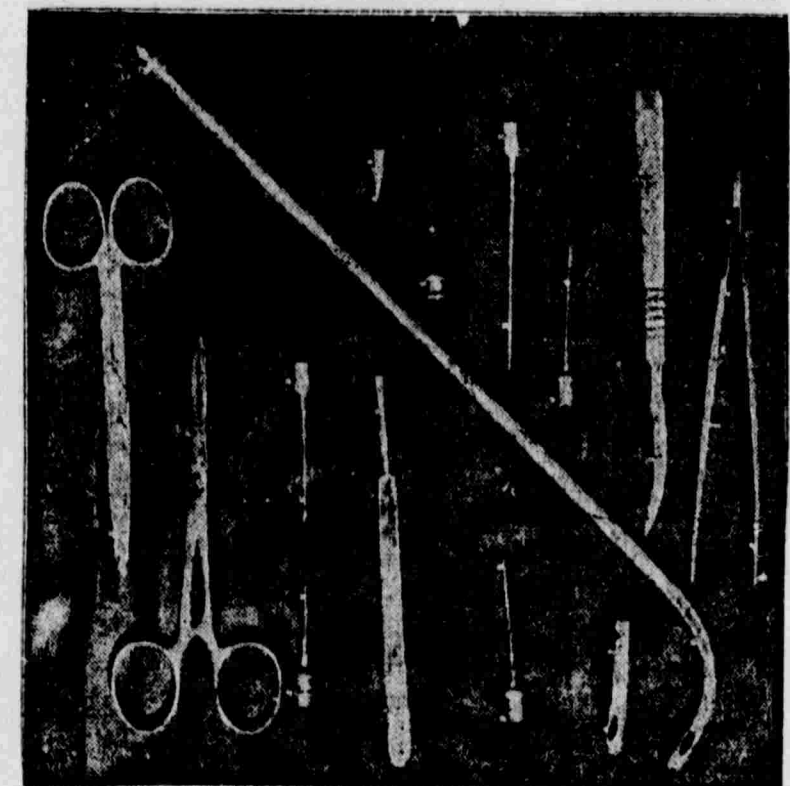
Mr. Vaughn began his investigations in 1888 and has been steadily at it ever since. He does not claim to have discovered a lost art, but to have invented means whereby gold, silver and copper, either separately or in alloy, can be taken through the various degrees of crystallization which correspond to the several tempers known in the arts.

By the process used these ductile metals are not only hardened but their density and homogeneity are brought to such practical perfection that a cutting edge is effective because of its absolute and microscopic fineness and smoothness. It does not tear-it divides, and for surgical purposes instruments of tempered gold are said to be superior to those of steel because of this keener edge, and because no microscopic speck of rust can harbor dangerous germs.

Interesting and important as the tempering of gold is from metallurgical and surgical points of view, the great commercial value of the discovery lies in its application to copper and the widely extended use of that metal which is thereby promised.

It is stated by Mr. Vaughn that tempered copper is not subject to that

crystallization through vibration which limits the life of steel. That springs of



Tempered Hypodermic Needles and Other Tempered Surgical Instruments—14-Carat Gold.

tempered copper have not only as great elasticity and strength as steel springs, but that, owing to the extreme slowness of the process of crystallization, they will retain the spring temper for a practically indefinite period. Furthermore, that owing to this quality of tempered copper and its great tensile strength all metal parts of machinery which are subject to vibration may be more profitably, and, as in the case of propeller shafts, more safely made of copper than of steel.

It is thought that the most immediate and possibly the most extensive use of tempered copper will be for journal bearings. It is stated that, owing to the great density of the metal, it takes a perfect polish with use and makes an almost frictionless bearing, free from danger of overheating, and long outlasting either babbit metal or brass for the purpose.

It is also thought by scientific men that tempered copper, owing to its hardness and density, will solve several important problems of electrical engineering, with the result that usefulness of electrical machinery will be materially extended, with corresponding increase in the use of copper.

At 223 West First street Mr. Vaughn has established his factory, and is

working a force of men in the manufacture of gold surgical instruments, for which there has arisen an insistent demand. Gold hypodermic needles are particularly sought for, because a number of remedies such as those containing acids of the mercurial salts, which could not be used with steel needles, may now be introduced directly to the blood. Furthermore, tempered gold needles are perfectly aseptic if reasonably well cared for, and steel needles are not so, because of the incessant liability of steel to corrosion.

The whole effort of Mr. Vaughn's present force is directed to the manufacture of the needles and knives here illustrated. He is, however, about to add a copper tempering plant of sufficient capacity to turn out the metal on a commercial scale. Later silver will likewise be tempered for use in the manufacture of cutlery.

A company has been incorporated in Los Angeles under the style of the Tempered Ductile Metals company to finance necessary and very considerable enlargements of the enterprise. The success attained so far in the manufacture of tempered gold surgical instruments has by the testimony of metallurgists and surgeons of standing been most notable. The samples of tempered copper suitable for springs, for bearings and for rigid bars, which have been submitted for expert examination, promise a like success in a much more extended field.

The officers of the new company are: Mr. Wm. V. Holley, president; Mr. H. Howard Douglas, vice-president; Mr. Jacob E. Meyer, treasurer; Mr. Wm. A. Alderson, secretary; Mr. Z. F. Vaughn, superintendent.



Tempered Gold Surgical Blades, Acetate Glass Razors.

WONDERFULLY PROFITABLE

This is the last opportunity to secure stock of THE TEMPERED DUCTILE METALS COMPANY at 25 cents a share.

The process of tempering COPPER, GOLD and SILVER by this Company has created widespread interest in the scientific world.

Send for booklet giving details of this wonderful process. Endorsements of scientists who have given it expert examination and letters from prominent physicians who are using tempered gold surgical instruments to the exclusion of all others.

Out-of-town subscribers will please wire reservations in order to secure the stock at 25 cents. The next block will be sold at not less than 50 cents per share.

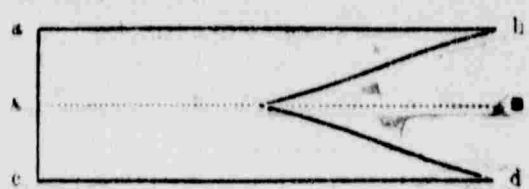
SILVER

Expert Report of Dr. Julius Koebig Of Los Angeles

Los Angeles, Cal., Feb. 15, 1906.
General Securities Company,
Los Angeles, California.
Last December I was requested to examine and report upon the product of tempered copper, gold and silver as they are produced by Mr. Vaughn's process. The process itself being a secret one and consequently not open to investigation, I obtained in the open market a piece each of sheet copper, 18-karat gold and sterling silver stamped with a private mark, for Mr. Vaughn to operate on. The results obtained are set forth below:

COPPER.

In my presence part of the copper was cut into small pieces, fused in crucible and put through the "puddling" process by Mr. Vaughn. The fused metal was then poured into a mold. The so-obtained ingot was then rolled between steel rollers showing a very decided increase in hardness over the original metal. Then strips of the rolled "tempered" copper showed decided elasticity. In bending beyond the limit of elasticity the metal broke like a steel spring, the break showing a crystalline surface. A corner of the "tempered" copper will easily scratch the surface of the original sheet copper from which it was produced, proving a very marked increase in hardness. Careful analysis failed to show any different chemical composition of the original soft copper and the "tempered" copper.



GOLD.

A plate of 18-karat gold shaped like figure was tempered by Mr. Vaughn on one side of the line A. B., while the other side was left in its original state. The untempered half could easily be hammered out on an anvil. The "tempered" half had a steady ring and very marked resistance when hammered. The "tempered" half had considerable spring elasticity, which was absent in the untempered half.

I had a knife edge put on the two lines A. B. and C. D. respectively. The knife edge on the "tempered" side could be used for shaving, sharpening pencils, cutting thin sheet copper without indentation on the edge, while on the untempered side the knife became bent and useless in the first attempt of cutting the wood of a pencil.

SILVER.

The test of sterling silver was a complete repetition of the gold test, with identical, although not quite as pronounced, results.

In addition to the above tests, a case containing various surgical instruments, such as scalpels, hypodermic needles, etc., manufactured by Mr. Vaughn, was submitted to me. The working parts of all these instruments were made of 14 karat gold. They all showed spring elasticity, keen cutting edges and marked resistance against wear and tear. They combine the working capacity of steel instruments with the great advantage of ease of sterilization and non-corrosiveness.

As far as my tests have gone, I consider that the products of Mr. Vaughn's process for "tempering" gold, silver and copper fully sustain all the claims which he puts forth.
(Signed) DR. JULIUS KOEBIG, Ph. D., Ch. E.

THE GENERAL SECURITIES CO.,
310 Pacific Electric Building,
Los Angeles, Cal.
Gentlemen: Enclosed herewith please find check for \$..... for which please send me a certificate for shares of the Tempered Ductile Metals Co., at 25 cents per share, which will share in all the profits of the company.
NAME
ADDRESS

GOLD
Our Guarantee Accompanies
Each Certificate
of Stock.

THE GENERAL SECURITIES CO.,
310 Pacific Electric Building,
Los Angeles, Cal.
Gentlemen: Please send illustrated booklet containing full details concerning tempered copper, gold and silver. Should I find everything as represented, I may invest in the stock of the Tempered Ductile Metal Company.
NAME
ADDRESS

Stock is Now 25 cents a Share. After April 1st the Price Will Be Advanced to 50 cents Per Share.

William V. Holley, President, and J. E. Meyer, Treasurer of the Tempered Ductile Metals Company, will receive subscriptions for stock at Knutsford Hotel, Parlors F and G, up to 10 o'clock Tonight.

Over half of the 25,000 shares allotted to Salt Lake City has been subscribed during the day and we would advise those desiring some of the stock to call before 10 o'clock this evening.

THE GENERAL SECURITIES COMPANY FISCAL AGENTS

310 Pacific Electric Building, Los Angeles, Cal.