

OUR COMIC SECTION

Our Pet Peeve



FINNEY OF THE FORCE



THE FEATHERHEADS



Fanny Pulls a Fast One

NEW COLORIMETER AID TO INDUSTRY

Device Measures Color With Extreme Precision.

Cambridge, Mass.—Human judgment in the measurement of color has been eliminated from industry by a new instrument developed at the Massachusetts Institute of Technology, called a colorimeter, used for automatically measuring the color of any substance rapidly and with extreme precision.

In all previous instruments human judgment has entered into the matching of an unknown color with a standard color, accuracy of such color matching depending entirely upon the skill of the observer and the quality of light. It can only be made with such instruments by persons whose color vision has been carefully standardized.

The new colorimeter developed at Technology by Prof. Arthur C. Hardy and Frederick W. Cunningham of the department of physics, does not depend upon any human judgment, and the accurate records of colors come from the machine as fast as samples can be fed to it. The importance of such an instrument lies in its value to industry, in nearly every branch of which control of color of its products is necessary.

Accurate measurement of color is the first concern of manufacturers of fabrics, particularly in the delicate shades which often deceive the eye. Color control is also of basic importance in making of inks, dyes, paper, and many other commodities. In the manufacture of confections, one company alone makes chocolates in 75 different colors, each of which must be kept at a standard shade.

Makes Record on Paper.

The new machine not only measures color accurately, but makes a record on paper by which it is possible to match that shade at any time.

A powerful optical system and electrical devices are employed in registering color by this machine. The specimen color placed in the holder is illuminated by a special tungsten filament lamp which gives an illumination 50 times more intense than full sunlight. Water filters are used to prevent the light from setting fire to the sample. In making the measurement, magnesium carbonate, the whitest substance known, is used as the standard of comparison. Light is alternately reflected from the specimen and the magnesium carbonate and acts upon a photo-electric cell in which it sets up an alternating current.

This current is fed to a vacuum tube amplifier which increases the power ten quintillion (10,000,000,000,000,000) times and automatically keeps the amount of light from the specimen and the magnesium carbonate balanced. The color of the specimen is analyzed at each wave length of the spectrum and the record is reproduced automatically by a pencil moving over a revolving drum. The result is a description of the color, by means of which the identical shade may be reproduced as often as desired.

Colorimetry is a science that is still in its infancy, but a good start has been made toward establishing standards for colors. With this new machine much delay and tedious experimentation is eliminated. It will even go to the point of establishing just how many shades or variations of any given color are possible, down to the most delicate that are practically impossible of differentiation by the human eye.

Needed in Industries.

Color standardization is something that enters into hundreds of industries, and in them is of paramount importance.

Take, as an example, cottonseed oil. Refined cottonseed oil produced in this country during the last year was valued at around \$23,000,000, the market value of which is determined largely by its color. Very minute differences mean variation of hundreds of thousands and even up to the millions of dollars in the market value. Sometimes, because of a disagreement between buyer and seller of a consignment, over the color, there will be suit over the amount involved.

In one case seven tank cars of cottonseed oil which called for a color 7.8 per cent red proved to be 7 1/2 per cent red, which made a difference of \$15,000 in the value.

Colorimetry also enters into health studies, such as the skin and blood tests, eye protective glasses, etc.

In standardizing and testing colors the United States bureau of standards is co-operating with the light-house service, the railways, the steamship companies, and agencies dealing with highway traffic. And yet, the bureau people say, the problems which have been solved and the things that have been done are insignificant compared with the things that still await solution. Years of study and research will be required to develop the science of colorimetry to a point where most of the demands can be met.

Worth It

New York.—Joseph Minkel probably will concede that it was worth it. In court for parking his car in forbidden territory he explained that he saw another motorist who owed him \$150, left his car, ran after the creditor, got the money. "Then you won't miss a \$1 fine," said Magistrate Bridges.

FINDS ROMANCE IS OUT OF EXPLORING

Amundsen to Devote Time to Lecturing.

Moscow.—Capt. Roald Amundsen, the man who had peeped at the top and bottom of the world, is through.

"The airplane and dirigible have taken the romance out of exploration," he said. "Dog sleds nowadays fly through the air. The good old times when terrific hardships were a pleasure are gone."

"The man who starts north or south in a dog team today feels like a piker. Some 'Byrd' comes along and squeezes a year's trip in one day of twenty-four hours. He packs up a couple of chicken sandwiches, and then is too excited to eat. We in the old days dragged a ton of hard-tack over the ice and were glad to munch every crumb."

Though resolved to spend the rest of his life lecturing amid the luxuries of civilization, Amundsen believes there is much to be done.

The eleven-day train trip across the steppes of Siberia put him in a reflective mood. He waited five days for the weekly express at Vladivostok and it pulled into Moscow three and a half hours late.

"Has anybody started to dig a hole in the ground?" he mused. "Think of the unlimited possibilities of such a venture. We go down a couple of thousand feet and bring up limitless treasures. There must be something or nothing in the 8,000 miles down from New York to China."

Judged by comparative developments up to the present time, Amundsen pinned his hopes for future commercial and scientific flying on the dirigible as against the airplane.

With a little greater perfection of maneuvering apparatus, he said he had no doubt but that dirigibles could be anchored over any given spot on the face of the globe while scientists descended by means of rope ladders to make observations on the ground.

"Lost" Fort in Canada Found After Century

Montreal.—Old Fort Halkett, in the Lizard river country, abandoned almost 100 years ago by the Hudson Bay company, has been rediscovered by Allaire Delzell, a trapper, who has reached Telegraph creek British Columbia, from the river country. In the '80s an attempt was made by an expedition of the geographical survey to find the old post, but without success.

Delzell probably is the first white man to visit the place since the traders abandoned it a century ago. He found an old cabin, built of squared timbers, near a stretch of water called Fish lake by the Indians.

Inside the cabin was a quantity of powder and lead, as well as a number of ancient muskets. Parchment made from caribou skins covered the windows, but Delzell believes that the parchment was provided by the Indians, who apparently make use of the old fort from time to time.

Delzell told of an exciting race between himself and a pack of 25 wolves. He was crossing the ice on Fish lake when he saw the wolves approaching in fan formation. Armed, except for a .22 automatic pistol, he was compelled to roost in a tree for several hours until the wolves went in search of easier prey.

Bottle Drifts From New York to Azores

Red Bank, N. J.—On June 26, 1923, Mr. and Mrs. Frederic Parker Humphreys of New York city and Fair Haven, N. J., were cruising on Long Island sound in their yacht Fenella.

Mrs. Humphreys wrote a note, inclosed it in a corked bottle and threw it overboard. The bottle was picked up July 15 of this year in the Azores, according to a letter just received by Mrs. Humphreys.

To arrive at this destination the bottle must have gone around Montauk point, striking the Arctic southerly current, following it down to some point south of Cape Hatteras, where it probably was caught in the gulf stream.

Bees "Kill" Line

York, Neb.—When a telephone circuit went "dead" near here, linemen found a swarm of bees had taken possession of the transformer box. The workmen removed several pounds of honey and service was restored.

German Matrons Taxed on Their Shorn Locks

Berlin.—"If women want to wear shingled hair, they shall be made to pay for it," is the decision of the municipality of Wartenburg in East Prussia.

A tax of 12 marks per year has been imposed on every shingled poll. Girls up to fifteen years of age are exempt, but married women who have sacrificed their locks have to pay double tax.

Other townships are preparing to follow suit in tapping this new source of revenue. At Schoennau the tax is 20 marks per year up to twenty years of age, and 30 marks after.

THIS WOMAN FOUND RELIEF

After Long Suffering by Taking Lydia E. Pinkham's Vegetable Compound

In a little town of the middle West, was a discouraged woman. For four months she had been in such poor health that she could not stoop to put on her own shoes. Unable to do her work, unable to go out of doors or enjoy a friendly chat with her neighbors, life seemed dark indeed to Mrs. Daugherty.



Then one day, a booklet was left at her front door. Idly she turned the pages. Soon she was reading with quickened interest. The little booklet was filled with letters from women in conditions similar to hers who had found better health by taking Lydia E. Pinkham's Vegetable Compound.

"I began taking the Vegetable Compound," Mrs. Daugherty writes, "and after I took the third bottle, I found relief. I am on my eleventh bottle and I don't have that trouble any more, and feel like a different woman. I recommend the Vegetable Compound to everyone I see who has trouble like mine, and you can use these facts as a testimonial. I am willing to answer any letters from women asking about the Vegetable Compound."—Mrs. Ed. Daugherty, 1308 Orchard Ave., Muscatine, Iowa.

Are you on the Sunlit Road to Better Health?

Boschee's Syrup

has been relieving coughs due to colds for sixty-one years.

Soothes the Throat

loosens the phlegm, promotes expectation, gives a good night's rest free from coughing. 30c and 90c bottles. Buy it at your drug store. G. G. Green, Inc., Woodbury, N. J.



DO YOU SUFFER FROM ASTHMA?

Try Olive Tar. Inhale it to soothe throat and nasal passages. Rub on neck and chest to relieve congestion. Take internally to stop coughing and remove inflammation from tissues of throat and lungs.

HALL & RUCKEL, New York

FOR OVER 200 YEARS

haarlem oil has been a world-wide remedy for kidney, liver and bladder disorders, rheumatism, lumbago and uric acid conditions.

GOLD MEDAL HAARLEM OIL CAPSULES

correct internal troubles, stimulate vital organs. Three sizes. All druggists. Insist on the original genuine GOLD MEDAL.

Popularity Due to Brains

The reason that popular college youths do not get as high marks as the bookworms is not, as commonly believed, just that they do not care to work as hard, but that they are likely to rate lower in brain power, reports Dr. W. H. Sheldon of tests made at the University of Chicago.

However, brains and outstanding leadership seemed to go together. The notion that large-bodied men rank higher in sociability than thin men, but lower in scholarship and intelligence, appeared to have some support from the figures.—Hygeia Magazine.

Raised Trouble

"So the Browns have had a disagreement and separated. What was it about?" "She wanted to have her face lifted, and he insisted that it be the mortgage."

