



Владимир Герасимов

ГИБРИДЫ ВОКРУГ НАС

*(Изобретательская
карточка)*

2012 г.

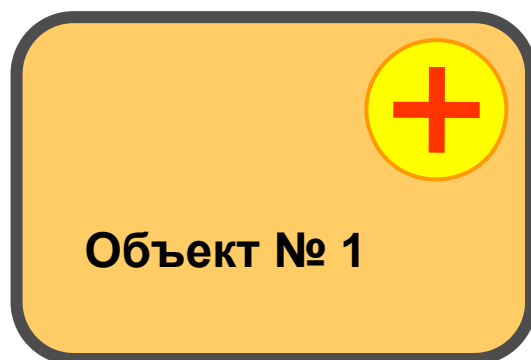
Почти ежедневно почта приносит кучу рекламной информации. Мое отношение к этой разноцветной бумаге простое: макулатура. Поэтому и путь у нее напрямик в мусорную корзину. Но однажды в фирменном каталоге чуть ниже названия WALTER DRAKE бросилась в глаза пометка – «Since 1947». Получается, что фирма торгует всякой всячиной уже 65 лет, несмотря на экономические, политические и прочие катаклизмы. Мне стало любопытно и я заглянул внутрь.

Предлагают бинокль с 10-ти кратным увеличением, но не простой, а совмещенный с цифровым фотоаппаратом – увидел что-то интересное, можешь сразу же получить фотографию, очень удобно... Кухонный кран объединили с душевой головкой, тоже стало удобнее. Или прозрачный солнцезащитный щиток для машины, я бы от такого не отказался. Еще предложения, одни понравились мне больше, другие меньше, но есть у всех у них нечто общее.

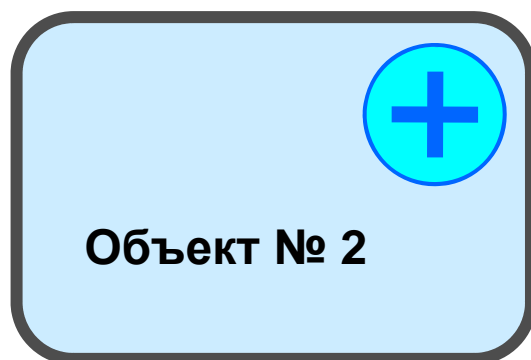
Это ГИБРИДЫ. Я отобрал 50 примеров, которые можно так позиционировать. Все они простые, но позволяют уловить ПОДХОД, с помощью которого были когда-то изобретены. Присмотритесь к окружающему миру, гибридов вокруг нас – несметное количество.

«Гибридизация» – один из моих любимых изобретательских инструментов. Применять его можно и в таких вот, простейших случаях, и для совершенствования гораздо более сложной техники.

1



2



3



ГИБРИДЫ

Гибрид – это объект, впитавший в себя достоинства других объектов. В простейшем случае у него два прототипа, но их может быть и больше (см., например, слайды №№ 9, 10, 17).

В работе показаны реальные вещи, которые, при желании, можно в магазине купить. Выполнена реконструкция – подобраны гипотетические «родители», т.е. те прототипы, от которых объекты-гибриды унаследовали сумму своих преимуществ (плюсов).

1



Апельсин

2



Помéло

3



Грейпфрут

Грейпфрут (*Citrus paradisi*) – субтропическое вечнозеленое дерево рода цитрус семейства рутовых (*Rutaceae*), а также плод, достигающий в диаметре 10 – 15 см.

Грейпфрут является, предположительно, результатом природной гибридизации апельсина (*Citrus sinensis*) и помéло (*Citrus maxima*). При этом он гораздо ближе ко второму, чем к первому.

Источник информации – Википедия:

<http://ru.wikipedia.org/wiki/%D0%93%D1%80%D0%B5%D0%B9%D0%BF%D1%84%D1%80%D1%83%D1%82>

Все остальные примеры – технические. Они взяты из каталога фирмы Walter Drake (Sale 2012), e-mail: wdrake.com, phone: 1-800-525-9291.



1

Бинокль



2

Фотоаппарат



3

Vivitar R Binoculars/Digital Camera

High-Tech Vivitar® Binoculars are a Digital Camera at an Unbelievable Price! Here's a gift that will make a lasting impression. Binoculars enlarge images 10 times the power of the naked eye to focus on wildlife outdoors for up-close viewing...instantly snap a photograph! Includes 16 mb of memory that will store up to 75 photos. Mini USB-style cable makes downloading photos a breeze with the included software. Lens cloth included keeps lenses clean and scratch-free. Compatible with Windows Vista, Windows XP and Mac Systems. Uses 2 AAA batteries, not included. Made of PVC, metal and glass; 3 1/2 x 2 1/2 x 5 1/4".

\$44.99

327063



1

Ходунки для взрослых



2

Пластиковый столик



3

Transport Dinner, Magazines, Crafts, Easily as You Walk.

Sturdy gray plastic turns your walker into a convenient TV tray. Cup wells secure beverages; raised edges prevent accidental slide-offs. Fits through side bars of standard walker, 16" length between side slots; measures 21" x 16" x 1". Others sell for \$59.95.

~~\$19.99~~ **\$12.99**

303423



1

Ходунки для взрослых



2

Пластиковое кресло



3

Padded Walker Rest Seat

Turn your walker into a seat. High-quality, heavyweight seat creates a safe place to rest while on the go. Attaches with hook-and-loop fasteners and flips down when needed. An affordable option that fits most walkers. Supports up to 300 lbs. Wipe-clean polyurethane.

~~\$39.99~~ **\$12.99**

344155



1

Номер дома



2

Наружный светильник



3

Glow In Dark House Numbers

Glow in the Dark House Numbers guide visitors to your home. Black numerals with green fluorescence on vinyl self stick to most surfaces. Save precious emergency response time, too! Each 2 1/2" x 5" number is sold individually; specify: 0-9.

\$2.99 (Qty.1)

306454



1

Увеличительное
стекло



2

Светодиод



3

Торшер



4

LED Magnifier Floor Lamp

Bright reading light is also a magnifier. Magnifying floor lamp illuminates reading material or handiwork with 12 bright LED lights. Includes 5" dia. lens with 2X magnification and smaller loupe with 6X power for extra close-up work. Flexible gooseneck lets you aim the light right where you need it. UL®-listed power cord included, or takes 3 D batteries, not included. Easy assembly. 44"H. Made in USA.

\$99.99

331740

1



Свеча

2



Лампочка (или светодиод)

3



Батарейки

4



Real Wax Flameless Scented Candle

Enjoy the look and radiance of candlelight without danger! Flameless candle is worry-free lighting around the house. Looks and feels like a real wax pillar candle. Brightens a window, table centerpiece or mantel... "flame" bulb won't blow out. Measures 3 3/4" high, 3" diameter; uses 2 AA batteries, not included. Great gift for a friend!

~~\$12.99~~ **\$4.92**

304837



1

Форма для выпечки кексов



2

Деревянная толкушка



3

Shape Tarts and Pastries Simply.

Handy tool presses dough down to form tart shape. Dual ends are great for mini- and regular-sized desserts and pastries. Also great for grinding herbs. Rubber wood. Hand wash. 8 1/2"L.

\$4.99

340047



1

Гибкий шланг для душа



2

Кухонный кран



3

Flexible Faucet Sprayer

Extend your reach. Flexible faucet sprayer with 6"L connector has 2 settings to reach where an ordinary faucet can't. Easily fill or wash sinks, tubs, vases, oversized pots and more. Attaches to faucet in seconds without tools. Push/pull nozzle adjusts spray from stream to shower. Stainless steel with chrome finish. 6"Lx1 1/4" dia.

\$7.99

339972



1

Шарнирная душевая головка



2

Кухонный кран



Sprayer Aerator

3

Turn Your Faucet into an Instant Sprayer Aerator. Swivel sprayer rinses where sink-mounted sprayers can't reach. Changes from a splash proof stream to a strong steady spray to reach every corner of the sink. Easily clean veggies, rinse pasta, power wash pots and pans. Flow restrictor conserves water, saves money. Heavy duty plastic with chrome-plated brass coupling twists onto faucet; 3" x 1" x 1".

\$6.99

307154



1

Непрозрачный
солнцезащитный козырек



2

Солнцезащитные очки



3

No Glare Visor Extender

No-Glare Visor Extender reaches where a regular visor can't to block blinding glare from sunlight. Optically-clear green plastic clips onto existing visor to reduce eye strain for safer driving. Will not obstruct view. Flips up and out of the way in seconds. Measures 11 1/4"Wx4 1/4"H. 6" between clips.

\$6.99

310599



1

Яйцо, сваренное всмятку



2

Глазунья на сковородке



3

Silicone Egg Poach'R™

Enjoy perfectly poached eggs every time. Just crack an egg into the Silicone Egg Poach'R™ and place in boiling water. Simmer 3 to 5 minutes and remove with the convenient handle. It's easy to enjoy poached eggs in minutes! 5"H x 4" dia. Dishwasher safe, top rack only.

\$7.99

336361



1

Велосипед для тренировки



2

Кресло для отдыха



3

Pedal Cycle Exercise Bike

Sit in Your Favorite Chair and Pedal Away Inches! Pedal cycle provides the same beneficial form of exercise, without the strain of uphill and downhill motion. Firms calf and thigh muscles, trims tummy and strengthens back, too. Helps improve circulation. Tubular steel is 11" high. Adjusts easily for stronger pedaling. Easy assembly.

\$12.99

303116

1

Часы с браслетом



2

Кожаный ремешок



3

Липучка



4

Self-Fastening Wristwatch

No more hassles with tiny buckles that are so difficult to fasten and unfasten. Stretchy black, 3/4" wide band won't pinch and dig into wrist like metal bands. Adjusts with self-fastening closure. Large numbers are easy to read!

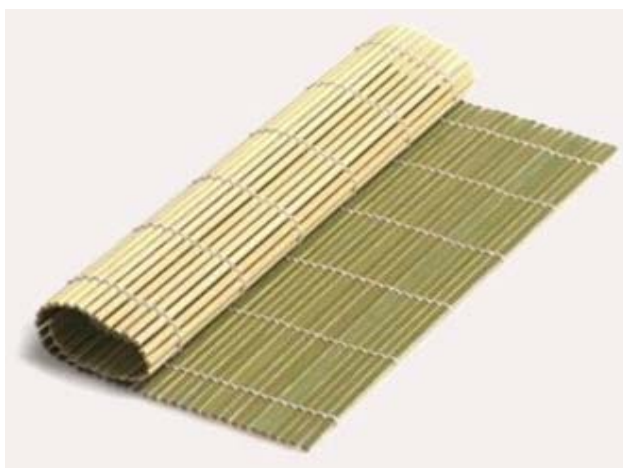
\$15.99

302623



1

Резиновый коврик (не скользит)



2

Бамбуковая салфетка
(экологически чистая)



3

Water Resistant Bamboo Mats

An environmentally friendly accent for any room. Bamboo mats stay put with nonslip rubber backing. Water-resistant mats are great in the kitchen, sunroom, hallway or entranceway. Nylon trim. Imported.

\$24.99

306605



1

Ожерелье



2

Елочная гирлянда



3

Flashing Necklights

These necklaces and earrings will add real holiday fun and flair to any outfit. Choose our classic unlit (18"L) or our festive flashing necklights (31"L). Each "light" is 3/8". Flashing necklights have 3 different settings. Earrings: 3 1/2"L. Batteries included. We apologize for any inconvenience; however, this item is not available for delivery to Canada.

\$ 4.99

310562

1

Кружка



2

Блюдце



Использованный
чайный пакетик



3

Tea Bag Mugs, Set of 2

Unique, no-mess mugs hold your tea bag on the side, so you can enjoy your favorite variety anywhere. 12-oz. mugs are easy to grip and microwave safe. Set of 2. Hand wash.

\$9.99

342783



1

Форма для выпечки кексов



2

Стаканчик для рассады



3

Tartlett Pan

Tarts and tartlets look perfectly delicious when you make your tarts in this non-stick pan with removable bottoms. Just press up on bottoms, and tarts release without breaking. Tarts pan is 7/8" high x 10 5/8" squared and makes four 4" diameter tarts. Tarts pan is dishwasher safe carbon steel.

~~\$21.99~~ **\$14.92**

307961



1

Ситечко



2

Пресс для отжима сока



3

Total Tea Infuser

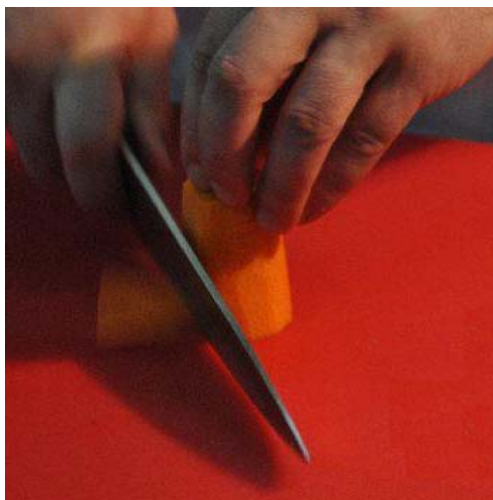
Measure, steep, stir, and press—Any Tea, Anywhere. Enjoy tasty, healthy tea conveniently! This portable, spoon-shaped infuser's hopper scoops, holds, and stirs loose-leaf or bagged tea, steeping it through an easy-latch stainless steel

screen. Spring-loaded plunger squeezes out every drop of flavor and prevents drips. Dishwasher-safe plastic. 7 1/4"L x 1 5/8"W x 3/4"H.

\$7.99

336462

1



Морковь режут ножом

2



Карандаш затачивают точилкой



3

Carrot Curler

Create fancy curls and swirls in seconds! Forget about peelers designed for one task: peeling potatoes. Carrot Curler is as easy as sharpening a pencil! Place peeled vegetable inside and rotate veggie clockwise. Create mounds of carrot, zucchini or cucumber ribbons for salads, casserole toppings and hors d'oeuvres. Dishwasher safe plastic with stainless steel is 4 3/4" long.

~~\$12.99~~ \$4.99

303470



1

Столовая вилка



2

СТОЛОВЫЙ НОЖ



3

Knork® 10/18 Stainless Steel Knife

If you have unsteady hands or arthritis pain, using a knife at mealtime can be difficult. The Knork® turns two utensils into one. Smooth beveled edge cuts lettuce to meat, by just pressing down on either edge. Dishwasher safe, stainless steel 7 1/2" tool can be used by right or left-handers.

\$7.99

305199



1

Графин с пробкой



2

Стеклянный стакан



3

Bedside Carafe

Keep water close at hand. This striking etched glass set combines pitcher and cup into one lovely serving piece that stays handy at your bedside. Five-oz. cup acts as a cover so water stays fresh. Hand wash. 7 3/4"H x 3 3/4"dia. 28-oz. carafe.

~~\$14.99~~ **\$9.92**

308026



1

Выключатель



2

Цифровой термометр-гигрометр



3

Temperature Toggles

Track temperature and relative humidity with digital readouts right at the top of this switch plate! Rear switch selects °F or °C; plate installs simply without wiring! Specify: (25 White) or (18 Ivory). UL listed. Plastic. Includes battery.

~~\$17.99~~ **\$9.92**

328878



1

Полиэтиленовые пакеты



3

All Purpose Plastic Gloves

All Purpose Plastic Gloves Less Than 4¢ Each! Use a different pair for your many jobs: washing the dishes, coloring your hair, cleaning the oven, removing paint and varnish. Set of 100; one size fits all.

\$3.99

303212



2

Резиновые перчатки



1

Хозяйственная сумка на колесиках



2

Женская сумка



3

Deluxe Foldaway Carryall

Deluxe Foldaway Carryall saves your back from heavy loads. Folded Including Handle - 14 1/2" W x 2"D x 16 1/2" H; Unfolded Including Handle and Wheels - 16 1/2"Wx10 1/2"Dx34 1/2"H bag alone 14 3/4"Wx7 1/2"Dx21 1/2"H. Blue, heavy gauge canvas on steel frame has protective rain flap and easy rolling plastic wheels.

\$39.99

303208



1

Ключ трудно поворачивать старикам и детям



2

У штопора большая удобная ручка



3

Easy Key Turner Set of 2

Easy Key Turner makes turning small keys take less strain. Snaps easily over standard keys. Set of 2 comes in assorted colors.

\$4.99

331395

1



Футляр для очков

2



Зеркальце

Разные очки



3

Double Eyeglass Case

Double eyeglass case protects two pairs of glasses at the same time so you don't have to fumble with separate cases. Perfect for sunglasses and reading glasses. Zip closure; center divider is handy mirror. 7 1/2" L x 4" W x 2 1/2" D.

\$12.99

337008

1



Ключ

2



Фонарик



3

Handy Key Light

Handy Key Light ends fumbling for tiny keyholes in the dark! Push the button...beam of light illuminates area. Snaps onto base of key and has loop for attaching to key ring. Black 1 3/8" plastic case has replaceable bulb and battery.

\$1.92

302535



1

Бочки – металлическая или
пластиковая (200 литров)



2

Непромокаемый тент



3

Rain Barrel

Rain Barrel Collects Nature's Valuable Resource—Water! Catches and holds rain water from your drain spout to provide an ample supply of FREE soft water for vegetable gardens, flower beds, potted plants and lawns. No chlorine, lime, calcium or sediments that can actually thwart plant growth. Bottom discharge valve quickly connects to standard 3/4" dia. hose end. Collapsible 3-ply, UV resistant polyester tank holds 74 gallons (280 liters)!

\$49.99

333047



1

Лейка для полива цветов



2

Спринцовка с двумя
наконечниками

3

Watering Spikes

Watering Spikes take care of your plants for you! Simply fill an empty liter bottle with water, attach a watering spike and insert into the ground or potting soil. Moisture delivers a slow drip directly to roots. Add plant food to water as needed. Set of 6 sturdy plastic spikes: 6"L each.

\$6.99

333206



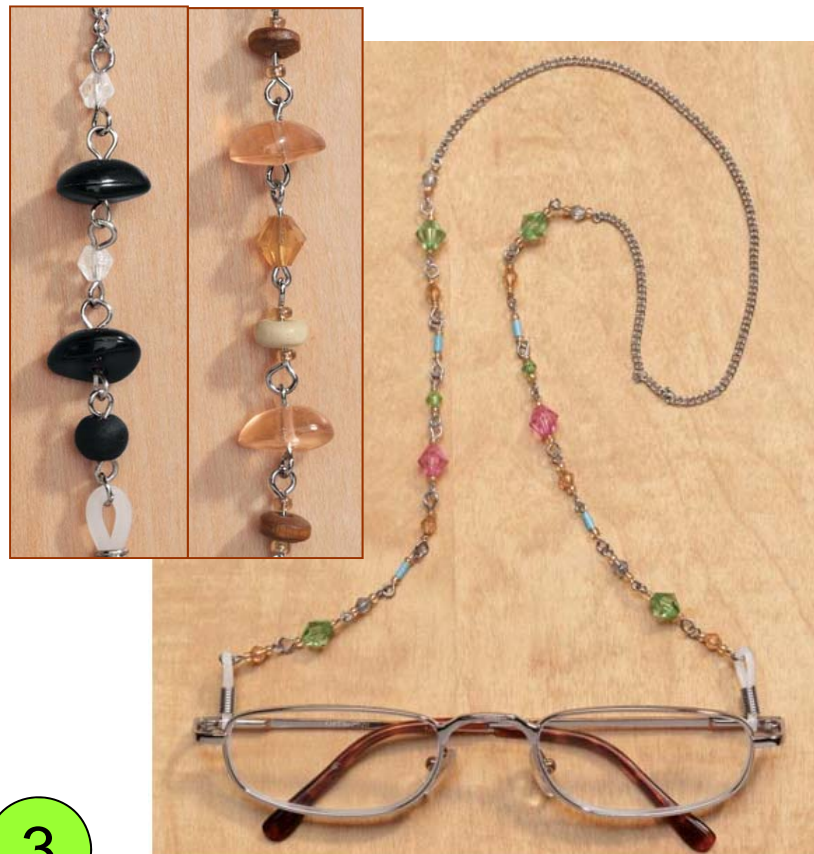
1

Очки с цепочкой



2

Бусы



3

Beaded Eyeglass Chain

No more searching for your glasses, when they're beautifully strung around your neck on a gorgeous, beaded chain. Ends loop easily over eyeglasses. Plastic, metal. 24 1/2"L.

\$5.99

339529



1

Очки



2

Лупа



3

Clip On Magnifiers-3.25X

See intricate details clearly with clip-on magnifiers. Leave hands free to find phone numbers, read menus, check maps. Lightweight, hinged acrylic lenses flip up when not in use. Fit frames up to 3/8" thick.

~~\$7.99~~ **\$3.92**

302682



1

Дверная ручка



2

Протектор на шине



3

Door Knob Gripper

Doorknob gripper slips over doorknobs to provide a slip-free surface, making them much easier to turn. Constructed of sturdy rubber.

\$4.99

331888



1

Копилка



3

Digital Bank

Digital Bank Money Machine counts change up to \$999.99! Each time you deposit a coin, the total is digitally updated. Lid twists off to access savings, resets to zero to save again. Uses 2 AA batteries, not included. Kids see the visual reward of saving! Plastic jar is 3 1/2x6 3/4".

\$7.99

324508

2

Калькулятор





1

Столовая вилка



3

Spaghetti Forks Set of 4

Stainless steel spaghetti forks have ridges to prevent noodles from slipping as you twist! Set of 4 is dishwasher safe.

\$5.99

319030



2

Зубчатая рейка



1

У стакана одинарные стенки

У термоса
стенки
двойные,
он хорошо
сохраняет
температуру
содержимого.

2



3

Insulated Tumblers

Pastel, Double Insulated Tumblers in assorted, fun Caribbean pastels keep beverages cold... serve drinks outdoors on the patio worry-free. Choose from a set of four 12 oz. or 16 oz. tumblers. Dishwasher safe, top rack only; straws not included.

~~\$14.99~~ **\$9.92**

306588





1

Резка на разделочной доске



2

Кусачки



3

Stalk Slicer

Slice veggies safely—and four times as fast. Chop carrots, celery, chives, and more, quickly and safely! This stalk slicer's stainless steel blades cut four slices at once; just insert veggie and squeeze handle. Slicer latches shut for safe, convenient storage. Right-handed. Dishwasher-safe plastic. 7"L x 2 1/2"W x 1 1/2"H.

\$16.99

336973



- 1 Формочка для кубиков льда



- 2 Чернильница-непроливайка



- 3 **Covered Ice Cube Tray**

Make Ice Cubes Without Spilling a Drop. No more drips on the floor or in your freezer. Snap on the lid and add water through the hinged single opening. Lid keeps out fridge odors for clean, fresh-tasting ice. Dishwasher-safe plastic. 1 13/4"Lx4 1/4"Wx1 1/2"H.

\$6.99

329214

1



Охлаждение напитков льдом

2



Медицинский охлаждающий пакет



3

Rapid Ice Wine Cooler

This simple sleeve can chill wine in five minutes flat—and keep it cold for hours. Just flatten and freeze; then slide around a 750 ml bottle. Specify: Red Grapes or White Grapes. Silicone gel/plastic. Wipe clean. 7"H.

\$14.99

329219



1

Перчатки хлопчатобумажные



2

Коврик против скольжения



3

Jar Opening Gloves 1 Pair

Open jars easily with this pair of handy helpers. Each glove provides a nonslip grip to tackle even the most challenging jar lids. Machine wash. One size fits most.

\$4.99

338044



1

Посуда с едой



2

Полиэтиленовая шапочка



3

Reusable Elastic Edge Bowl Covers Set/50

Set of 50 Reusable Bowl Covers keeps foods fresh without foil or plastic wrap that never fits right! Elastic grips various bowl sizes. No more transfers from bowl to bowl to refrigerator or reheat. Set of 50: 10 each of five graduated sizes approximately 6", 7", 9", 11", and 13".

\$4.99

312261



1

Резка ломтиками («как всегда»)



2

Стусло



3

Fruit and Vegetable Holder

Fruit & Vegetable Holder gives you perfect slices and protects tender fingers from nicks and cuts. Cupped holder instantly grasps tomatoes, lemons, limes or onions to make slicing a breeze. Aluminum holder with 7 tines is 8 1/2" x 3 1/2" x 1 1/2". Hand wash. No more runaway onions or crushed tomatoes. Makes it easy to cut uniform slices for dinner salads and garnishes!

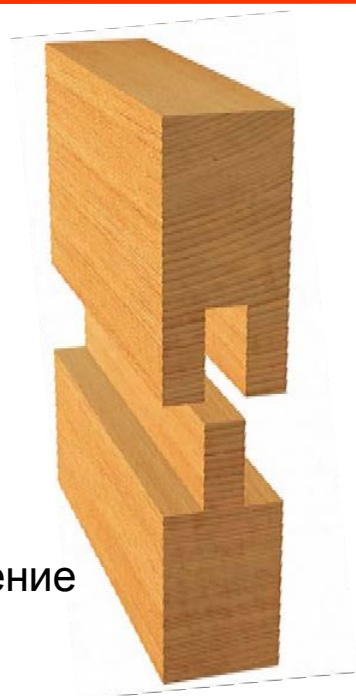
\$9.99

303547



1

Деревянные ложки, лопатки



2

Соединение
шип-паз

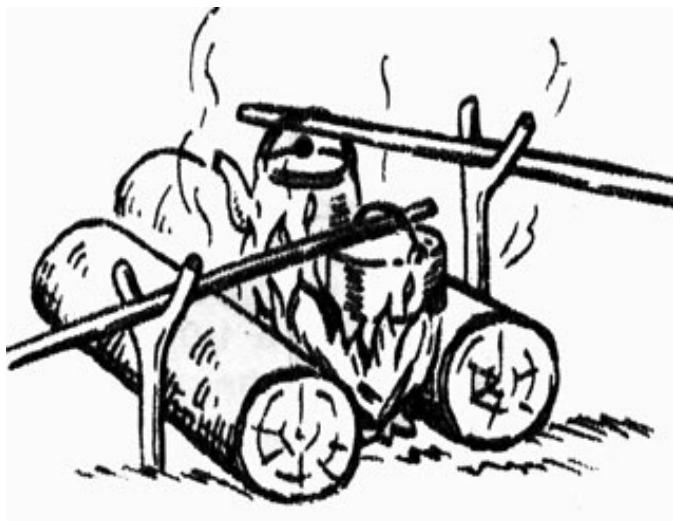
3

Wooden Hanging Utensils Set of 3

Durable Birch Wood Stir Spoons Hook onto Pans to keep countertops spotless as you cook. It's the foolproof way to prevent sauces and gravies from scorching—spoon is at your fingertips for frequent stirring. Clever notch design secures handle to skillet or pot. Spoon and slotted spoon are 11 $\frac{3}{4}$ "L, straight edge 12 $\frac{5}{8}$ "L; hand wash.

\$11.99

320424



1

Рогульки для костра



2

Бельевая прищепка



3

Clip On Spoon Rest

Keep cooking utensils close at hand. Fits most pots and utensils. Heat resistant up to 400°F. Assorted colors; we'll choose for you. 2 1/2" long x 1 1/4" wide.

\$6.99

340059



1

Традиционный способ



2

Очистка поверхности шпателем



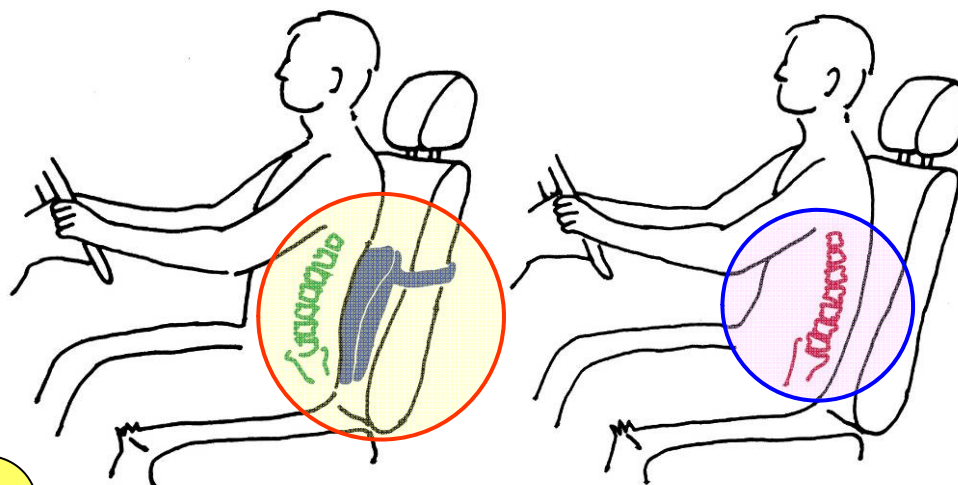
3

Corn Cob Cutter

Corn Cob Cutter zips off every sweet kernel of flavor in one quick sweep! Create mounds of corn for fresh corn fritters, chowder, Mexican casseroles. Forget soggy canned corn! Plastic coated handle has adjustable serrated blade; 9 3/4".

\$5.99

310746



1

Подушка – опора для спины



2

Груша для
тонометра

3

Portable Lumbar Support

Take-anywhere lumbar support. High-quality, portable lumbar pillow makes sitting more comfortable. Use for back or neck support on chairs, car or airplane seats, or use as a pillow while traveling. Hand pump makes it easy to inflate for custom support. Elastic band slips around chair back. 12" L x 2 1/2" W x 6 1/2" H.



\$39.99

343304



1

Пластиковый поднос



2

Подушка



3

Stable Lap Table

Stable Lap Table gives you a stable, level surface for reading, writing, eating, card playing-wherever you sit! Beanbag bottom molds comfortably to the shape of your lap so it stays put whether you're at home or traveling. Includes handy cup holder. Plastic with fabric base is 17" x 13" x 5".

\$9.99

303565



1

Лента с липким слоем



2

Гибкая магнитная полимерная лента



3

Magnet Tape

Make Your Own Magnets with flexible magnetic tape. Adhesive back attaches to photographs, artwork, business cards. Reverse side clings to fridge or cabinet. Roll has 30 feet.

\$9.99

328990



1

Шторы
на окнах



2

Защитный костюм с
теплоотражающей
поверхностью



Home
Stays
Warm In
Winter,
Cool In
Summer

3

Solar Curtains

Energy-Saving Solar Curtain Panel prevents heat loss in winter, keeps home cooler in the summer. Cuts sun's harsh glare to reduce fading of furniture and carpet. You can see out...no one can see inside. Silvery polyethylene has rod pocket to slip over existing rod; trims to fit.

\$3.99

303189

1



Телефонная трубка

3

Portable Phone Amplifier with Case



2

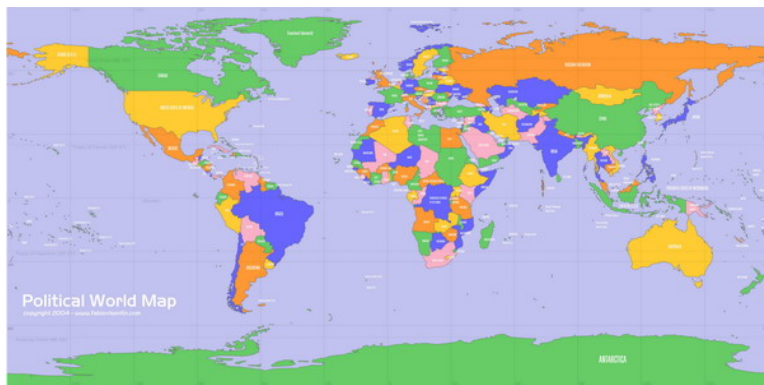


Мегафон – усилитель звука

Compact, portable unit straps on to any corded, cordless or payphone handset to amplify the caller's voice up to 20 times louder. Digital speech-enhancement technology ensures you can hear every word clearly. Uses 2 AAA batteries, included; comes with carry case. 2 1/2" x 2 1/2" x 1". No express shipping. Allow up to 2 weeks for delivery.

\$49.99

335234



1

Политическая карта мира



2

Пазл



3

Global Puzzle

Global Puzzle Teaches Geography Piece by Piece. Large, 36x18" puzzle includes all US states, 193 countries, and the 13 provinces of Canada in the shape of each territory. Learn country demographics in the ocean area. Educationally challenging for ages 4 and up!

~~\$19.99~~ **\$9.92**

328141

На семинаре по ТРИЗ и ФСА в 1981 году в Москве, в ИПК Мин-электротехпрома, слушатель задал вопрос преподавателю, Г.С. Альтшуллеру: «Какое минимальное количество карточек по одной теме должно быть в картотеке?». Я запомнил ответ. Генрих Саулович сказал: «Наберите 50 – 100 штук. Но после этого сформулируйте вывод – правило или рекомендацию – и запишите его на отдельной карточке. Вот ее-то и оставьте, а все остальные можете спокойно выбросить».

Какую же рекомендацию можно написать, рассматривая приведенные выше полсотни «карточек»? Ну, хотя бы вот такую:

ЕСЛИ ЕСТЬ МИНИМУМ ДВА ОБЪЕКТА, КОТОРЫЕ ПО-РАЗНОМУ ВЫПОЛНЯЮТ ОДНУ И ТУ ЖЕ ФУНКЦИЮ, ТО МОЖНО ПОЛУЧИТЬ ГИБРИД, ОБЛАДАЮЩИЙ СУММОЙ ПРЕИМУЩЕСТВ ПРОТОТИПОВ. (Такой же подход годится и для варианта, когда один объект должен выполнять разные функции, но справляется с этим плохо или совсем не справляется).

Это незатейливое правило я не раз применял на практике, и в большинстве случаев оно срабатывало. При сложении плюсов часто проявляется «сверхэффект», когда конечный результат значительно больше, чем просто сумма отдельных слагаемых. Можете проверить это сами, я уверен, что у вас тоже все хорошо получится.

Владимир Герасимов
Сентябрь 2012 г.