

April 13, 1954

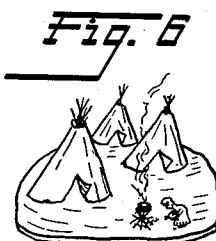
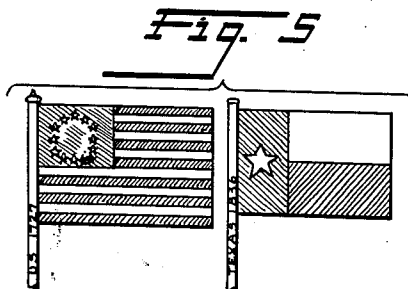
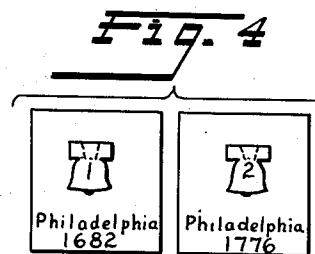
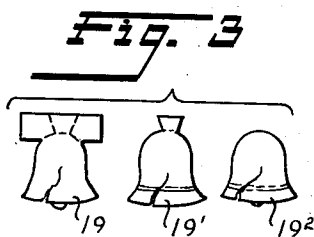
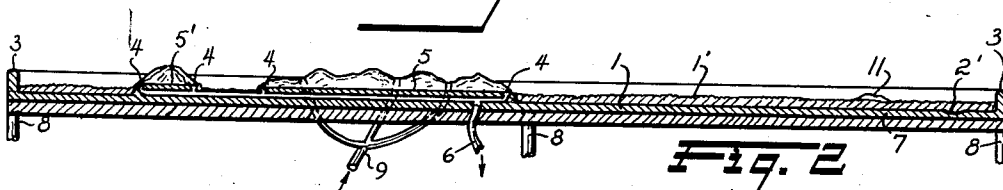
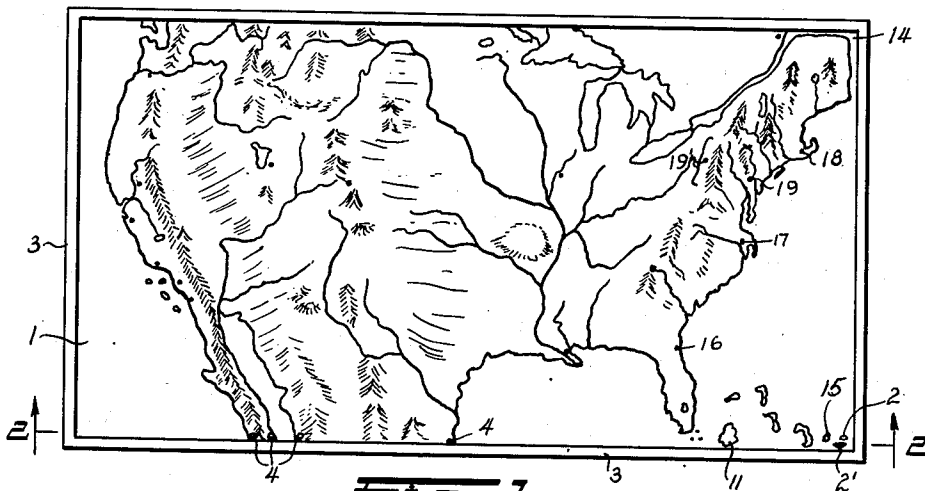
L. I. HUTCHINSON

2,674,813

RELIEF MAP HISTORICAL GAME OR TOY

Filed May 24, 1950

4 Sheets-Sheet 1



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LOIS I. HUTCHINSON

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ATTORNEYS

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2,674,813

RELIEF MAP HISTORICAL GAME OR TOY

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4 Sheets-Sheet 2

Fig. 8

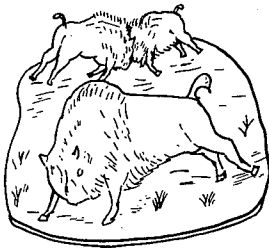


Fig. 12

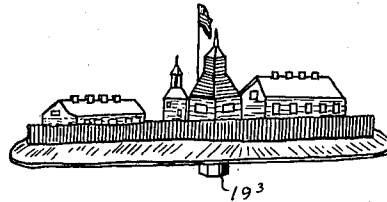


Fig. 9



Fig. 13

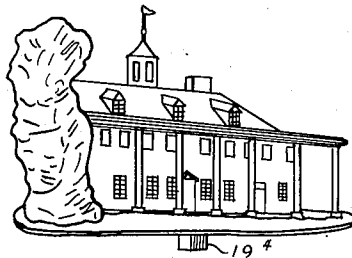


Fig. 10



Fig. 14

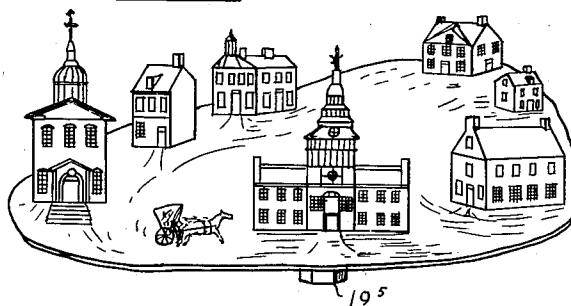


Fig. 15



Fig. 11



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RELIEF MAP HISTORICAL GAME OR TOY

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4 Sheets-Sheet 3

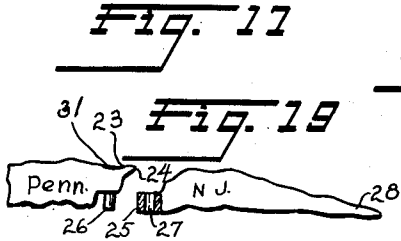
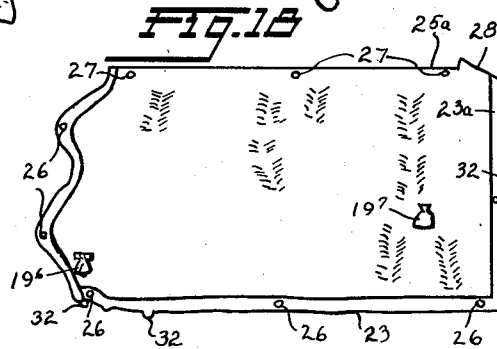
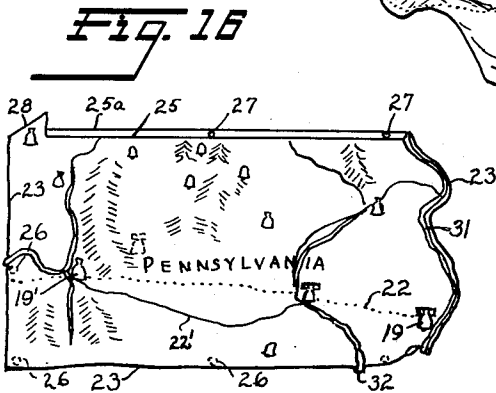


Fig. 22

Fig. 20

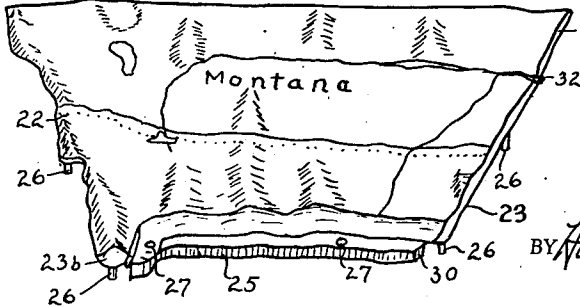
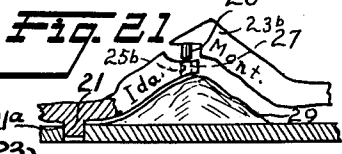


Fig. 23

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RELIEF MAP HISTORICAL GAME OR TOY

Lois I. Hutchinson, Washington, D. C.

Application May 24, 1950, Serial No. 163,965

18 Claims. (Cl. 35—41)

1

This invention relates to a new educational game or toy which may be played in the manner that children play "school," by placing, in strict chronological order, specially designed small flags and historical miniatures (with self-locating bases) on two novelly constructed and colored, waterproof, relief maps of the same part of the world, so molded that one map, formed of interfitting sections, will fit over and can be built on top the other map, which is preferably formed in one piece and in low relief. The basic map may represent a nation or continent when it was a wilderness; and the upper sectional map may represent the building up of that nation or continent into States or countries. Both maps have individually designed wells or depressions thereon at historical sites, for holding miniatures or game pieces whose bases are designed to fit only into, or over, the proper wells or depressions.

The primary object of this invention is to provide for children a game or toy that imparts geographical and historical instruction along with entertainment.

Another object is to provide a self-guiding "take-apart and put-together" game or toy that may be enjoyed by children too young to have a knowledge of geography or history; and a game or toy that may even be enjoyed by blind children.

Another object is to provide a game or toy of realism, by presenting game pieces, such as small flags or like miniatures—faithfully reproduced—of actual things that have happened or existed, or do exist, on earth; and directing their chronological placement on relief maps, to bring out the relationship of historical events and their interdependence on inventions; and thus to trace the progress that civilization has made through the centuries.

Another object is to provide a game employing—with reality and with a reason—the things that children like to play with and to keep a "collection" of: flags, Indians or other aborigines, horses, animals, soldiers, ships, trains, automobiles, and airplanes.

Other objects are to provide a study of the care and use of flags; an appreciation of each nation's monuments, shrines, and places of interest; a study of architecture and building methods in different periods of history; information about the history of the music of a nation; and a short study of weather conditions that prevail over different parts of a country during the seasons of the year, by symbolizing natural things like the sun, moon, and stars, and water, wind, and smoke—which bring the maps to life.

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Briefly, my geographical and historical instruction device for studying the chronological development of a particular geographical area comprises a base map of a geographical area, a second map formed of interfitting sections adapted to be fitted over and to be built up upon the base map and representing when so assembled thereon the same geographical area but at a different period in the area's historical development. Each of the maps are preferably provided with wells formed in the upper surface of each which are adapted to receive projections formed on the lower surface of a plurality of historical game pieces or miniatures for securely retaining the game pieces on either map. The wells and the projections carried by the game pieces are preferably so formed and shaped as to permit only one particular game piece to be secured in proper position on a particular place on the maps, thereby indicating the correctness of the selection of the game piece.

In the accompanying drawings, the United States is taken as an example:

Fig. 1 is a plan view of the basic solid map, molded in low relief, showing the location of a few of the historic sites, the canal providing drainage from Canada; and the caves in which the ocean safety overflows are concealed.

Fig. 2 is a vertical section of the basic map, taken along the southern border, showing the safety overflow tunnels, the shallow ocean construction with water diagrammatically indicated thereon, the rim, the mounting, the legs, the tubes for incoming water, and the hose for outgoing water.

Fig. 3 is a plan view of the individually shaped bells for the region of Pennsylvania.

Fig. 4 is a bottom plan view of the bases on two of the miniatures for the site of Philadelphia.

Fig. 5 represents the type of small flags.

Fig. 6 represents the type of Indian village miniature, with a campfire that is an incense burner.

Fig. 7 represents the type of vegetation patches.

Fig. 8 represents the type of animal groups.

Fig. 9 represents the type of Revolutionary soldiers.

Fig. 10 is a bottom plan view of the base of an Indian village.

Fig. 11 represents the type of fish.

Fig. 12 represents the type of early forts.

Fig. 13 represents the type of colonial buildings.

Fig. 14 represents the type of colonial towns.

Fig. 15 represents the type of frontiersmen.

Fig. 16 is a plan view of the upper sectional map.

Fig. 17 is a plan view of the State of Pennsylvania, showing the borders that have overlaps with posts, and one border with underlap with holes, for interlocking.

Fig. 18 is a bottom plan view of Pennsylvania, showing the intaglio molding, the posts, holes, and guiding pegs for interlocking.

Fig. 19 is an elevational view partly in section showing the joining borders of Pennsylvania and New Jersey.

Fig. 20 is a fragmentary sectional view of an overlap showing the optional suction-cup post design for flexible rubber maps.

Fig. 21 is a sectional view of connecting borders along a mountain top and also showing an interlocking peg carried by the underneath side of a section of the upper map fitting into a corresponding well in the lower or basic map.

Fig. 22 is a perspective view of the State of Montana, showing a cut-off underlap, and a thinning overlap.

Fig. 23 is a sectional view of the meeting of the borders of several States.

Fig. 24 represents the locomotives of different periods—designed as incense burners—showing holding brakes.

Fig. 25 represents the ships of different periods, showing the detachable anchor on one.

Fig. 26 is a perspective view of the chainlike railroad tracks with couplings and spikes.

Fig. 27 represents a river dam—the Hoover Dam.

Fig. 28 represents the type of trees.

Fig. 29 is a perspective view of modern Pennsylvania, built up with miniatures representing it in 1950.

The double relief maps may be maps of any large portion of the world, as of the United States, or Europe, or South America. Their surface measurements may be large or small—in any size consistent with the number of objects to be placed on their surfaces. (Less expensive sets can be small, with fewer miniatures. More expensive sets, with many miniatures, can be as large as can be set up on the floor of an ordinary play room.) I recommend, as the standard size, approximately 4½ feet by 7½ feet—a size that would be convenient for twelve-year-old children to reach halfway across, and one that would accommodate all of the miniatures, and on which the entire game could be played.

The relief maps may be made of any waterproof material, such as rubber or plastic—but preferably rubber, which does not have to be reinforced to prevent warping, and which can now be made to smell like “mountain air” through the use of the new odorant, “Alamask,” and can also be colored very easily.

The relief maps may be neutrally colored, or, preferably, realistically colored according to the contour of the land: with green in the lowlands where vegetation is abundant; brown in dry regions; sand color in desert regions; slate color in high, rocky mountains; white on peaks and mountains that are snow-capped the year round; with certain places varicolored, as the Grand Canyon and Painted Desert; and soils that show tinted their natural colors, as the red clay of some southern States, the white sands on certain beaches, and white cliffs as those of Dover. On realistically colored maps, the lakes would be a light blue, and the oceans a dark, often purplish blue, with an occasional white-capped wave; but

the rivers would be a drab gray and not blue, unless they actually appeared blue. If the maps are neutrally colored, the basic solid map may be a dull green color in its entirety, including ocean beds; and the upper sectional map may have each section of a different, solid, neutral color, as sand color for a dry-land section, slate color for a mountainous section, and green for a lowland section.

The mountains and elevated lands on the relief maps are realistically reproduced for the proper edification of children. For instance, children should not form the idea that the Rocky Mountains are a series of precipitous and jagged peaks.

The elevation of the Rockies is very high, but over a broad base; and atop the Rockies, as indicated on my maps, are many tablelands, accommodating much farming and grazing. The characteristic feature of the Rockies is shown: numerous cliffs of sheer rock, and immense rock formations, from which they take their name. The Cascades and the Alps, on the other hand, are shown on my maps as high and precipitous, with many snow-capped peaks. The Appalachians, in comparison, are like high, rolling hills; and the Ozarks are represented to be what they are—a high, eroded plateau.

The rivers and harbors on my relief maps are, however, disproportionately wide, in order to accommodate the flow of water, the river boats and ships, the bridges and dams, and the lakes forming behind the dams.

The large or famous falls in each country are constructed into my relief maps, such as Niagara, the Bridal Veil Falls in Yosemite National Park in California, and Shoshone Falls in Idaho.

Natural formations in each country are constructed into my relief maps, and are often disproportionately large in order to accommodate some later work of man, such as the carving of the stone faces on Rushmore Mount in South Dakota, and the Civil War figures on the Stone Mountain near Atlanta. (The carvings are in caps that slip over the original mountains.)

The miniatures or game pieces—tiny replicas of actual things—may be made of any waterproof material, such as plastic or rubber, or a combination of such materials, in natural colors. Ships and buildings may be of plastic or hard rubber, which shines; but animals, vegetation, and Indian villages should be of dull, flexible rubber. Trees especially should be of flexible rubber, so that they will sway in the wind. Flags are of actual cloth, soft enough to drape well, like silk or nylon. Flagstaves are of Monel metal, or a similar rust-resistant material, so as to be strong enough not to break or bend easily. Tiny incense burners may be of Bakelite, or a similar heat-resistant material. (These are for burning pine incense and producing smoke, and are provided in the form of campfires for Indian villages, cannon for war, steamships, locomotives, factories for cities, and craters that fit in volcanoes like Vesuvius.)

The limitations of the miniatures are that they are limited in number and content to actual historical things, as pictured and related in reliable histories; that is, each miniature is founded on historical fact, not imagination or folklore. The miniatures are limited in size each to whatever size will conveniently fit its particular location on the maps, and its permanence thereon. Transitory objects like Indian villages and battlefields may be much larger than permanent cities. And in all cities, the famous or historical buildings are given prominence and made recognizable,

and other non-historic buildings are grouped about them.

Referring again to the drawings of the relief maps—with the United States as the example—and the types of miniatures to be placed thereon: Fig. 1 represents the basic solid map of the United States when it was an unknown land; therefore, no names, subdivisions, or "improvements" are shown thereon—only the old Indian trails that later became the white man's roads.

The oceans 1 are a part of the basic solid map. Their surface may be rippled, and in the shallow ocean construction, they preferably slope gently from the shoreline to slightly below sea-level at the outer rim of the map, and they also have a slight inclination to the south; yet they are level enough, before water is applied, to hold ships—and whales—in prepared "troughs" in their waves, such troughs each being in a size and shape to fit the submerged part of the hull of the particular ship to be placed there, as Columbus's "Santa Maria" will fit in trough 2, and the "Niña" in trough 2¹, etc. The fish, shrimp, and oysters that are to be placed on the ocean bed are held in place by the contour of the ripples or waves.

A low, rolled rim 3 is a molded part of the basic relief map, and extends entirely around the map. The rim is uneven in elevation because it follows the contour of the mountains across Mexico and Canada, and descends to slightly above sealevel all round the oceans. This preserves the realistic appearance of the map, by not giving it a boxed-in look. The low rim around the ocean is easy to work over, and adds a "dash of danger" when the ocean is being filled with water which has been diagrammatically indicated in Fig. 2 as 1'—although a safety overflow is provided.

The safety overflow 4 is concealed in "caves" on the shores of Mexico and Baja California, which caves, as shown in Fig. 2, are connected by "tunnels" 5 and 5¹ under the mountains of those lands. The caves are just above sea level at "high tide" and carry the water off at that level through the tunnels into a hose 6, connected through the undersurface (or through the southern rim) of the basic map. This hose may drain into a pail under the map, or it may be connected to a longer hose to carry the water into a bathtub, or through an open door to the ground outside.

The basic solid map may be unmounted, for use on a table or the floor; or it may have its own wooden or metal mounting 7, from which descend six legs 8 of either rigid or fold-up type, and of any well-known design, to support the entire map sturdily about two feet from the floor.

In the more expensive productions of the game or toy—especially those for display in store windows—water may also be piped into the base of the basic solid map through a system of fused tubes 9, so that it will emerge from the map as springs where the rivers rise, and thus create the effect of constantly flowing streams. (It may even be forced up as a geyser.) It may also be "piped" onto the upper sectional map when completed, by the insertion of small plastic straws or tubes in "water holes" through the upper map, which holes are over the springs on the basic map.

The small part of Canada that is shown in Fig. 1, all drains toward the Great Lakes or St. Lawrence River; and the overflow from the St. Lawrence is carried south through a "canal" 14 along the east rim of the map, past the lower tip of Maine, and into the Atlantic Ocean.

Lakes that have no river outlets, like the Great Salt Lake in Utah, are provided drainage through tunnels under mountains to nearby river beds.

A few of the historic sites where individually shaped wells or depressions are located on the basic solid map, Fig. 1, are shown as examples: 15, San Salvador Island where Columbus landed; 16, St. Augustine, Fla.; 17, Jamestown, Va.; 18, Plymouth, Mass.; 19, Philadelphia, Pa.; and 19¹, Fort Duquesne (Pittsburgh, Pa.).

The miniatures that are to be placed on the maps in chronological order during the playing of the game have, for identification, imprinted or impressed on the base, or undersurface, of each and every one its name and date. For further guidance in correct placement, and for anchorage on the maps, each miniature of a permanent or semi-permanent structure has on its base an individually shaped peg or projection that will fit only into the correspondingly shaped well or depression on the maps. Thus the pegs and wells are a guide for children too young to have studied history—and also for blind children.

As a further aid in the correct placement of the miniatures, and to form a connection between each State and all the objects to be placed thereon, and between each State on the basic solid map and its sectional form on the upper or overlying map, there is assigned to each State an individual master design for its pegs and wells. For instance, the master design for the Pennsylvania region on both maps is a small Liberty Bell, as in Fig. 3. The individual shape then for the pegs and wells at the site of Philadelphia is a Liberty Bell 19 with the beam from which it is swung and the clapper both showing. The individual shape for Pittsburgh is a Liberty Bell with only its "cannon" at the top, 19¹; and the individual shape for Gettysburg, on the upper map only, is a Liberty Bell with just the clapper showing, 19².

To indicate the sequence in which the miniatures are to be placed on a certain site, as that of Philadelphia, there is impressed on the bottom of each peg for that site a sequence number, as in Fig. 4, which shows also the impressed name and date on the bases. Thus a child can tell what miniature is next on a certain site by reading the number on the bottom of the peg just removed.

The designs for the matching pegs and wells for the other State regions are contrived so that the wells on the basic solid map will look like Indian signs or relics, will blend with the irregular terrain, and will have a meaning. Some of the other master designs to be used—each capable of being varied slightly in size, shape, or content, for the different locations in each State—are: an Indian tepee, a tomahawk, a canoe, a peace pipe, different leaves like the maple leaf, different birds or animals as the Indians might have drawn them, different crosses like the Indian signs; and different meaningful designs such as a Dutch windmill for New York; a Puritan's hat for Massachusetts; a log cabin for Kentucky; a lone star for Texas; a cowboy's hat for Montana; and a bison's skull for Wyoming.

The flags, two of which have been illustrated in Fig. 5, are planted on discovered lands, or flown in battle or from buildings, by the placing of their staffs in holes provided for that purpose.

Transitory miniatures like Indian villages, Fig. 6; patches of vegetation, Fig. 7; groups of animals, Fig. 8; and soldiers, Fig. 9, and Indian warriors have no pegs because they are large enough

to stand alone and are soon removed, or pushed back or moved about as the Indians and animals were with the advance of civilization. For guidance in proper placement, each has impressed on the bottom of its base—besides its name and date—a raised outline of the shape of each well over or near which it is to be placed, with a sequence letter inside each outline, as A, B, C. For instance, Fig. 10 shows the bottom of the base of a Creek Indian village that is to be first placed on the site of Atlanta, Ga., where De Soto might have discovered it (indicated by the letter A in a raised outline of the Atlanta peach leaf—the peach leaf being the master design for Georgia's wells); and then moved to Tulsa, Okla., as the Creeks were when they ceded their Atlanta lands to the railroads in 1821 (indicated by the letter B in a raised outline of the Tulsa arrowhead—an arrowhead being the master design for Oklahoma's wells).

The fish, as the whale in Fig. 11, and the ships, as in Fig. 25, have no pegs because such miniatures may fit into specially shaped troughs in the waves.

All forts, as Fort Dearborn, Fig. 12; buildings, as Mount Vernon, Fig. 13; towns, as old Philadelphia, Fig. 14, and similar structures, have pegs on their bases, as 19³, 19⁴, 19⁵.

The frontiersmen, as in Fig. 15; covered wagons; Pony Express riders and stagecoaches; and other miniatures of this movable type are each provided with an anchorage on its base, which anchorage is shaped like a rock 20 that will fit into a prepared "chuck hole" on the trails. The same shaped chuck hole appears several times on a long trail, thus permitting these miniatures to be moved along as in travel.

The second or upper relief map, Fig. 16, which is to overlie the basic map, is divided according to States. (In small maps, one section may, for workability, embrace two or three of the original thirteen States, as one solid piece may have Massachusetts, Connecticut, and Rhode Island, each outlined thereon.)

The upper map represents the progress of civilization; therefore, it has geographical names and other indicia imprinted, impressed, or raised on its surface, such as the names of States, rivers and lakes, and also the names and locations of principal cities that are founded at the time of admission of each State, but which are not to be represented by miniatures. It has roads along the routes of famous highways (as the Pennsylvania Turnpike 22¹, Fig. 17); and it has the outline of later national parks and monuments, Indian reservations, forest preserves, and game refuges.

The coloring of the upper map differs from that of the basic map in that the upper map shows the result of man's work and invention; consequently, there is now a patchwork of farm lands in many places that once were uncultivated. These farms may either be merely outlined, or be naturally colored, as wheat-colored farms in the Dakotas and other northern States; yellow-flecked green farms (for corn) in Iowa; red-flecked green farms (for apples) in Oregon and Washington; white-flecked green plantations (for cotton) in Mississippi and other southern States; and orange-flecked green farms (for oranges) in Florida and California.

The upper map has the same individually shaped wells as on the basic map, with the addition of several new ones in each State. It also has lines of spaced holes, as 22, for receiving railroad "spikes" along the railroad tracks. And on

the undersurface of each State there are pegs properly located and shaped to fit into the individually shaped wells already in the basic map such as previously indicated in connection with Fig. 1 by the numerals 17, 18, 19, etc. For example, the bell shaped pegs 19⁶ and 19⁷ carried by the undersurface of the State of Pennsylvania, as shown in Fig. 18, are located to fit into the individually shaped wells 19 already on the basic map. Additionally, this interlocking feature of the sections of the upper map to the basic map is shown in Fig. 21 where the individually shaped peg 21 carried by the undersurface of the State of Idaho is adapted to be received in the correspondingly shaped well 21^a in the basic map.

The upper map may be in any practical thickness; and each section, as Pennsylvania, Figs. 17 and 18, is molded so that it will fit over the corresponding region on the basic map; therefore the upper map, when completed, is in slightly higher relief than the basic map.

In order to maintain the proper watersheds in the completed upper map, each section or State has a specially constructed border, so that the higher States will overlap the lower States, and all interlock, thus providing correct drainage over the entire map. Since about 95 percent of all rivers in North America flow south, the general overlapping scheme is that each State overlaps a State to the south of it; and the States east of the Rockies overlap also the States to the east of them as far as the Mississippi; and the States west of the Rockies overlap also the States to the west of them. The States bordering the oceans and Great Lakes decrease in thickness, that is, slope down to a thin edge at the shoreline or at the edge of a sandy beach. This slight elevation in the completed upper map gives more depth to the Great Lakes, and represents the ocean shoreline at "high tide"—"low tide" being the ocean shoreline on the basic map. The States bordering Canada and Mexico also slope down to a thin edge as they near the international boundary lines, so that they blend with the terrain of Canada and Mexico and provide connecting river beds.

In the section shown as an example—the State of Pennsylvania, Fig. 17—the borders that will overlap New Jersey, Delaware, Maryland, West Virginia, and Ohio, are all fashioned with a short "overhang" 23, which has a rounded undersurface, as shown in Fig. 19, and which overhang or overlap has a sharp outer edge 24. The borders of States that will underlap other State borders, as New Jersey in Fig. 19, are fashioned with a corresponding "ledge" 25, the top of which ledge or underlap has a rounded groove in which the overlap of the higher State fits or rests. From the overlap descend several properly spaced round "posts" 26, which fit through correspondingly spaced round holes 27 in the underlap, thus interlocking the borders of the States.

The thinning or sloping border 28 of a seacoast States, as New Jersey, is also shown in Fig. 19. In Figs. 17 and 18, a thinning overlap is indicated at 23^a, and a thinning underlap at 25^a, to make a thin border at 28. These thinning borders still overlap and underlap each other, but do not interlock.

Where State borders meet along mountain crests, as between Montana and Idaho, Fig. 21, the overlap 23^b and underlap 25^b are varied slightly in design so as to preserve the appearance of the mountains and the proper watershed. The mountain range 29 on the basic map fits right

under this juncture. As heretofore mentioned this figure also shows the manner in which the sections forming the upper map interlock with the basic solid map, as by an individually shaped peg 21 carried by the base of Idaho fitting into a similarly shaped well 21^a indicating a historic site on the basic solid map.

An optional feature on maps made of flexible rubber is that the tip ends of the round posts 26^a, in Fig. 20, may be molded in a conical shape so that they flare out into thin rubber-like web-feet. These thin flares are pinched together with the fingers when the posts are being inserted in the holes in the underlaps, and will then open out beneath the holes to form latches for the posts and act as tiny suction cups when pressed down on the basic map.

When a State has alternating overlapping and underlapping borders, as Montana, Fig. 22, the corners of some of the overlaps or underlaps are cut off, as the underlap 25 is at 30, to provide proper junctures of all borders. This underlap is shown with two holes 27 for the Wyoming overlap posts.

When three State borders join, as Wyoming, Montana, and South Dakota, Fig. 23, the overlap of the highest State, Wyoming, has the post 26 in its corner, to fit into a corresponding hole in the underlap of the lowest State, South Dakota, which State underlaps both Wyoming and Montana. The posts 26 from the Wyoming and Montana overlaps that go through holes in the underlaps of Nebraska and North Dakota are also shown, to illustrate how all the States are finally interlocked. The thinning Canadian border 28 of Montana and North Dakota is also shown.

The States are easily raised to slip the underlap of a new State under the overlap of an older State; then both States, or all States around them, are settled into position again by simply pressing down on them—the posts 26 in the overlaps being through the proper holes 27 in the underlaps, and the individually shaped peg or pegs 21 on the undersurfaces of the States going into the correspondingly shaped wells 21^a on the basic map, as will be clear by reference to Fig. 21.

Where rivers form the borders of States, as the Delaware River does, in Figs. 17 and 19, the higher State, Pennsylvania, carries the river bed 31 along its border, depressed slightly in its overlap. Where river beds join along or across the borders of States, as the Delaware, Susquehanna, and Ohio Rivers in Fig. 17, and the Missouri River in Fig. 22, the river bed in each instance is fashioned with a short lip 32 to carry the water into the river bed on the next lower State. Where rivers from an underlapping State join the main river on the border of an overlapping State, as the rivers of Kentucky join the Ohio, proper depressions are provided in the edges of the larger river for the entry of the smaller rivers, which latter, in this instance, can have no lips, unless the maps are made of flexible rubber.

To make all river junctures waterproof, when the upper map is finally assembled, there is provided with each game, a small amount of putty tape, which may be worked with the fingers to a thin strip and pressed into all gaps in the river beds, thus "surfacing" them completely. The putty tape is easily removed, and may be used over and over. It also provides an "engineering project" for the game.

Many of the miniatures to be placed on the

upper map are the same, or of the same type, as those placed on the basic map; they are located on the same sites, and their pegs fit into the same shaped wells as on the basic map. Additional

types of miniatures for the upper map may include railroad trains of different periods, as indicated by their engines in Fig. 24. Each engine has its name and the date imprinted or impressed on its side. The tracks, Fig. 26, are small flexible chains of rust-resistant metal, with the links 34 being designed to resemble rails and ties—each link being the length of one modern railroad car, or of two old-fashioned cars. The links are joined with flattened oval "couplings" 35. The tracks are held in place on the map by "spikes" 36 (not sharp, but with rounded ends) on the under side of the tracks, one spike being on every second link. The spikes are to be inserted in prepared holes, as 22 on the upper map, Figs. 16, 17, and 22. A "golden spike" is on the Union Pacific track where it joins the Central Pacific track. (When crossing territories that are not yet States, the tracks are supported by "trestles" made of spaced mounds of putty tape.) The tracks are in varying lengths to represent the railroads as they were built; and each track has impressed on the ties, the name of the railroad and the date when built, and also the names of the cities it connects. The trains are held in place on the tracks by "brakes" 33, Fig. 24 (also spike-like projections); one brake on the under-surface of the "cowcatcher" of each engine, and one brake on the end of every second car (on old-fashioned trains, one brake to every four small cars or coaches), so that the brakes will fit into every other hole along the railroad tracks. The engines are of Bakelite, or a similar heat-resistant material, and designed with a "draft" so as to function as tiny incense burners to throw off smoke.

The ships, Fig. 25, represent the ships used or famous in different periods of United States history, from Columbus's three ships to the modern luxury liner. All ships are seaworthy—made of plastic or a similar buoyant, waterproof, rust-proof material (the steamships being of Bakelite, or a similar material, so as to function as incense burners); and each ship is equipped with an anchor 37 (shown lowered on the modern liner), which anchor is a detachable, small, but heavy, rust-resistant metal anchor on a chain, to hold the ship in place, and keep all the ships from drifting to the south rim of the ocean when water is being applied to the map.

Other miniatures may consist of Civil War soldiers, Indian warriors, automobiles, airplanes, and the like which may be mounted upon bases large enough to stand alone and capable of being moved from place to place as desired. Such miniatures may have suitable identification on their bases, as described above in connection with the Creek Indian Village.

Miniatures of State capitols may be formed as replicas of the capitol building of each State and in addition to the anchoring peg or projection on their base may carry flag staff sockets for supporting State flags and the like.

The large dams and bridges, such as the Hoover Dam, Fig. 27, have square "pillars" 39 to hold them in place, which pillars fit into prepared "excavations" on the upper map, where each dam or bridge spans the water. Trees, cacti, as generally indicated in Fig. 28, and similar types of vegetation, storm warning signals, State flower representations, and many other miniatures can

be provided for use with this instruction device in studying conditions, historical growth, etc., as will be readily apparent.

One State built up as it is today is depicted in Fig. 29, being Pennsylvania, with modern Philadelphia 40; the capitol building at Harrisburg, 41; the Eternal Peace Light at Gettysburg 42; modern Pittsburgh 43; the first oil well in America, at Titusville 44; the blockhouse in which General "Mad" Anthony Wayne died, 45; a coal mine at Scranton 46; and in the State forests and parks: a historic elm tree 47; the hemlock (State tree) 48; the State flower, mountain laurel, 49; the wild turkey 50; deer 51; bear 52; and Indian 53 on the Cornplanter Reservation.

The game may be played in the manner that children play "school" with one of the older players being selected as the "Teacher." The Teacher may be given a printed booklet (that could be supplied with the game) which may contain a chronological list of historical questions, answers and other information.

At the beginning of the game, the Teacher explains that the pupils have before them a map of the United States when it was an unknown land. They are to discover it, settle it, and build it as was done by their forefathers. The Teacher may ask each pupil in turn a question from the Manual, which contains a list of historical questions—in exact chronological order—and the answers, together with an indication of the proper miniature to symbolize each event, and its correct placement on the map. Pertinent information, to be read by the Teacher, is added after each question, to bridge the gap between events and to carry the story smoothly along.

As each pupil answers a question correctly—or the main part of a question—he is permitted to select the proper miniatures and place them on the map. When the next question is answered correctly, the answerer first removes any miniatures that would no longer be on the map, such as Columbus' three ships, and places them in the "Museum," but leaves all things that are to remain for a while, such as the Indian village and the Spanish flag. Many miniatures are permanent, and thus the youngsters see the origin of structures that remain to this day. As will be evident, historical events are followed chronologically so that the children can study and learn the development of the geographical area in all material respects.

As each new State is "admitted to the Union" and its sectional form is to be placed on the upper map, all the miniatures that would be beneath it on the basic map are, of course, first removed; and only those that are still in existence on that State are replaced on the upper map. Each "territory" has one or two miniatures on it before it is admitted to the Union, so that anchoring wells are provided for the pegs on the bottom of each sectional State.

The strict chronological order of events is a special feature of the game. Almost all American histories present events in group arrangements, as "Spanish Exploration and Conquest," "English Colonization," and "New France in America." But in this game, the events follow each other exactly as they occurred, and are therefore interwoven all over the map. From this chronological order, the children learn much of the interdependence of progress and inventions. The players see, for instance, that in 1776 while the East was embroiled in the Revolutionary War, the Spaniards in faraway California were peace-

fully building missions—there being little means of communication except an occasional sailing vessel.

The game may also be played on two relief maps of South America—just as it is played on the two relief maps of the United States—by following, chronologically, the discovery and conquest of South America, and then its history through revolution after revolution until all countries on that continent are independent, except the Guianas, where British, Dutch, and French flags still fly. The upper relief map for South America is sectionalized according to countries.

As will be readily appreciated, the game may be played with two maps of any desired country or geographical area of the world, or even on a world-wide scale, by following chronologically the history of the area in question in similar manner to the explanation heretofore given in connection with the United States.

I am aware that relief maps have long been constructed for general instruction; that water has been used upon them; that some have been made in interlocking sections; and that miniatures or models of various objects have been made and placed upon them. Therefore, I do not broadly claim the invention of any of these singular parts of my new game or toy. But I claim:

1. A geographical and historical instruction device for studying the chronological development of a particular geographical area, comprising a base relief map having a contoured surface designating the characteristics of a particular geographical area at an early stage in its historical development, a second relief map having a contour conforming to the contoured surface of the base map and formed of a plurality of interfitting sections adapted to be fitted over and assembled upon the base map and provided with representations of the same geographical area but at a later stage in its historical development, and retaining means for positioning said second map in superimposed relation with respect to said base map, said retaining means comprising mating elements positioned between the contacting surfaces of the base map and the second map, said elements consisting of projections carried by one of said maps and wells formed in the other of said maps, the mating elements being of such configuration that only one particular section of the second map can be properly positioned and retained on one particular location on the base map thereby definitely indicating the correct positioning of the sections on the base map.

2. The subject matter of claim 1 wherein the interfitting sections have reduced overlapping marginal edges to provide a substantial watershed over the map surface.

3. The subject matter of claim 2 wherein the interfitting sections are additionally provided with interlocking means between the reduced overlapping marginal edges of adjacent sections.

4. A geographical and historical instruction device for studying the chronological development of a particular geographical area, comprising a base map of a geographical area, a second map formed of interfitting sections adapted to be fitted over and be built up upon the base map and representing when so assembled thereon the same geographical area but at a different period in that area's historical development, retaining means for positioning said second map in superimposed relation with respect to said base map, said retaining means comprising mating elements po-

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sitioned between the contacting surfaces of the two maps, said elements consisting of projections carried by one of said maps and wells formed in the other, the mating elements being of such configuration that only one particular section of the second map can be properly positioned and retained on one particular location on the base map, a plurality of historical game pieces for use with said maps each game piece being provided with a projection on its lower surface, wells formed in the upper surface of each of said maps adapted to receive the projections of the historical game pieces for securely retaining the pieces thereon, said wells and said projections being so formed and shaped that only one particular historical game piece can be secured in proper position on a particular point on the maps thereby indicating the correctness of the selection of the game piece by the selector.

5. A geographical and historical instruction device for studying the chronological development of a particular geographical area, comprising a base map of a geographical area in relief corresponding to the geomorphic structure of the region represented, a second relief map formed of a plurality of interfitting sections shaped and adapted to be fitted over and assembled upon the base relief map, said second relief map when so assembled representing the same geographical area as the base map in relief but at a different period in that area's historical development, a plurality of historical game pieces for use with said maps each game piece being provided with a projection on its lower surface, wells formed in the upper surface of each of the relief maps adapted to receive the projections of the historical game pieces for securely retaining the pieces thereon, said wells and said projections being so formed and shaped that only one particular historical game piece can be secured in proper position on a particular historical point on the maps thereby indicating the correctness of the selection of the game piece by the selector.

6. The subject matter of claim 5 wherein several different historical game pieces may be each provided with projections of the same configuration so that they may each be individually placed on the same location on the maps and be individually retained by the same well.

7. The subject matter of claim 5 wherein the historical game pieces are each provided with identifying indicia and historical dates so that the correct historical piece may be selected for a particular historical period.

8. The subject matter of claim 5 wherein the game pieces comprise a plurality of sets of historical game pieces, each set representing a different historical period in the development of the particular geographical area, with the projections of an entire set of game pieces being each differently shaped from the projections of the other game pieces of the same set so that only one particular historical game piece of a particular set can be secured in proper position on a particular point on the maps thereby indicating the correctness of the selection of the game piece and preventing the insertion of an incorrect game piece for a particular historical period.

9. The subject matter of claim 8 wherein the historical game pieces are each provided with identifying indicia and historical dates so that the correct historical piece may be selected for a particular period under study.

10. The subject matter of claim 5 wherein the sectional map is formed of interfitting sections

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of molded plastic material having reduced overlapping marginal edges and interlocking means between the overlapping edges to securely retain the sectional map in assembled relation and to provide a substantial watershed over the map surface in relief.

11. The subject matter of claim 10 wherein the sections of higher elevation in relief have their reduced marginal edges overlapping the marginal edges of adjacent sections of lower elevation in relief.

12. The subject matter of claim 10 wherein the interlocking means between the overlapping marginal edges of adjacent map sections comprises a projection carried by the overlapping edge and a cooperating aperture formed in the underlapping edge.

13. The subject-matter of claim 10 wherein the base map and the second relief map are each provided with registering water conducting conduits for conveying water from beneath the surface of the base map to various high relief points on the second relief map so that water may be forced up through said conduits to said high points and be permitted to flow down the relief surfaces to illustrate drainage of the particular terrain represented by said device.

14. The subject matter of claim 12 wherein the ends of the projections carried by the overlapping marginal edges of the map sections are provided with vacuum cup means which when the projections are inserted in their cooperating apertures in the underlapped edges of the sections, may be extended through said underlapped edges and forced into firm engagement with the surface of the base map to additionally secure the sectional map in position.

15. A relief map formed of a plurality of separable interfitting sections each representing a State, country, political or geographical subdivision and having an outline corresponding to the boundary thereof and contours corresponding to the geomorphic structure of the region represented, each of said sections having reduced marginal edges for cooperative engagement with reduced marginal edges of adjacent sections in overlapping relationship with the sections of higher elevation in relief having their marginal edges overlapping the marginal edges of the adjacent sections of lower elevation in relief.

16. The subject matter of claim 15 and locking means between the adjacent overlapping marginal edges.

17. The subject matter of claim 16 wherein the locking means comprise projections carried by the lower surface of the reduced marginal edges of the overlapping edges and cooperating apertures formed in the reduced marginal edges of the underlapping marginal edges, which apertures register with and receive said projections when the sections are properly assembled to securely lock the sections in assembled relationship.

18. A geographical and historical instruction device for studying the chronological development of a particular geographical area, comprising a base map of a geographical area, a second map formed of interfitting sections adapted to be fitted over and built up upon the base map and representing when so assembled thereon the same geographical area but at a different period in that area's historical development, a plurality of sets of historical game pieces, each set representing a different historical period in the development of the particular geographical area, each of said game pieces of all sets being provided with a pro-

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jection on its lower surface, wells formed in the upper surface of each of said maps adapted to receive the projections of the historical game pieces for securely retaining the pieces thereon, said wells and said projections being so formed and shaped that only one particular historical game piece of a particular set can be secured in proper position on a particular location on the maps thereby indicating the correctness of the selection of the game piece from a particular set and preventing the insertion of an incorrect game piece for a particular historical period.

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