

THE GAMESMAN



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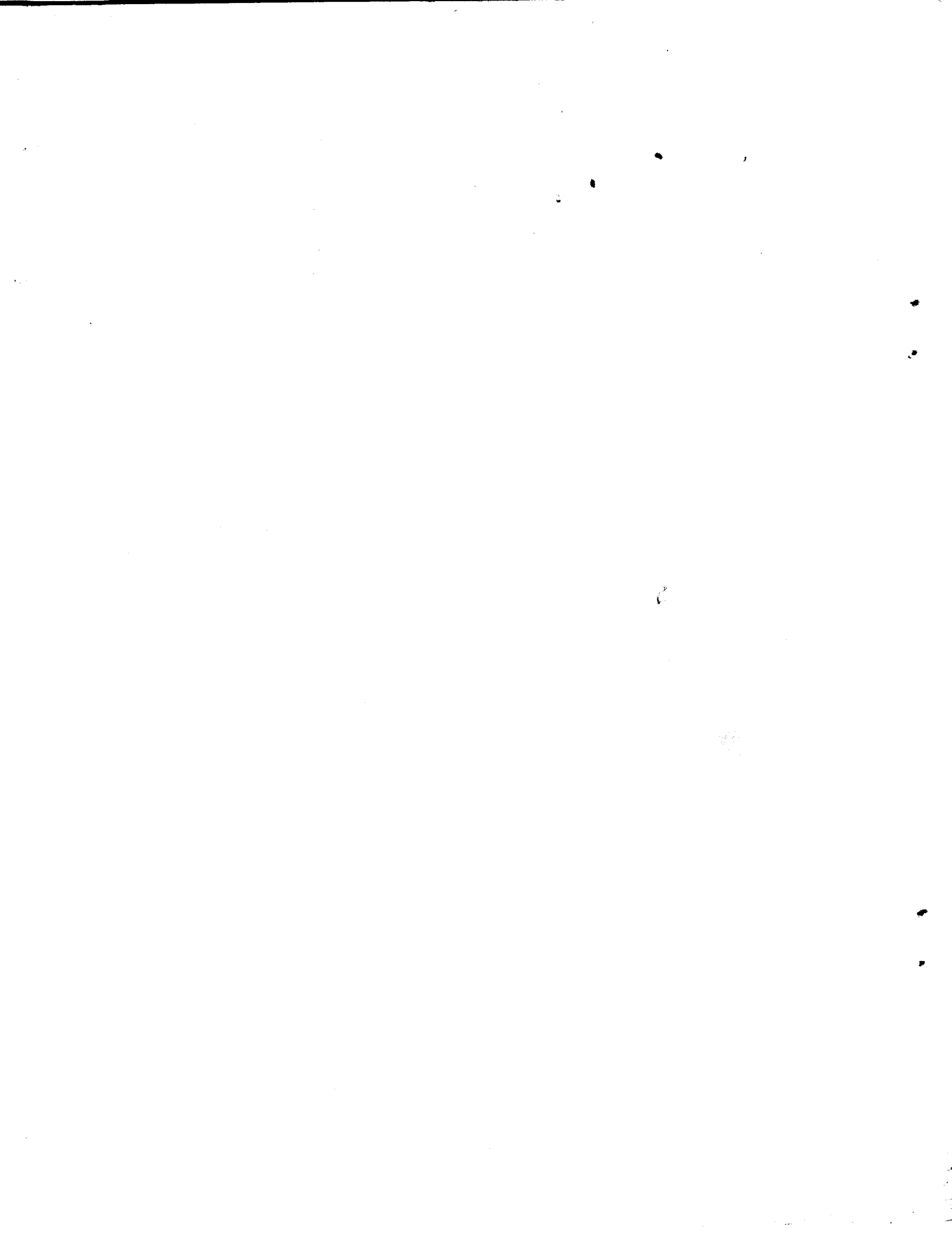


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Front and back covers by Alan Luehrmann.

Note that pages 5, 6, and 11-14 are not numbered inside this issue.

This is the fourth issue of THE GAMESMAN, a general games magazine published by the General Games Division of the N3F Games Bureau. Publication of this issue has been delayed an inordinate amount of time by lack of material -- a situation which we sincerely hope will not happen again. We appeal to you, the reader, to help us keep this magazine coming on a reasonable schedule by sending us games-related material for publication -- either as a formal article, or as an informal letter, as you see fit. The sooner we obtain enough issue for the next issue, the sooner THE GAMESMAN #5 will be out. It's entirely up to you.... LoC's also welcome.

The Games Bureau is a function of the National Fantasy Fan Federation, an organization of science-fiction enthusiasts. While membership in the N3F for Games Bureau members is desirable, it is not required. Bureau membership is of two classes: Associate membership, which includes all those persons who subscribe to a Games Bureau publication or participate in a Games Bureau activity, but have not paid their \$1 annual dues; and Regular membership, which includes all who have paid their \$1 annual dues. Regular members have full membership privileges, including regular receipt of THE GAMESLETTER (the Bureau official organ); occasional extras distributed through Bureau mailings; discounts/rebates on Bureau-related expenses; and the like. Associate members receive only partial benefits -- an occasional issue of THE GAMESLETTER, e.g. -- but no discounts/rebates. Divisions in the Bureau which are currently active are the Diplomacy, General Games, Go, History, Tolkien, and War Games Divisions (inactive Divisions include the Card Games, Chess, Classical Music, Fairy Games, Jetan, and Postage Stamp Divisions). Active Bureau publications include THE AMATEUR HISTORIAN (History Div.); BARAD-DUR, DIPLOMANIA, DIPLOPHOBIA, DIPSOMANIA, FANTASIA, GLOCKORLA, ORTHANC, & SUPERCALIFRAGILISTICEXPIALIDOCIOUS (Diplomacy Div.); THE GAMESMAN, RULESHEET PORTFOLIO Series, & YE FAERIE CHESSEMAN (General Games Div.); PICKLEHAUB (War Games Div.); ZOTT (Tolkien Div.); and THE GAMESLETTER. For more info, send to us for a copy of THE GAMESLETTER.

THE GAMESMAN #4 was edited and published by Donald L. Miller, 12315 Judson Road, Wheaton, Maryland, 20906, for the General Games Division of the N3F Games Bureau. Price per copy is 35¢ (25¢ to Regular members of the Games Bureau). Publication date is December 10, 1967.

A. FEW NOTES ON GAMES RESEARCH

As the article on the history of Games Research which appears in this issue was written more than a year ago, before publishing it we wrote to Games Research for the latest information available on price and availability of the games mentioned in the article, new developments with respect to new games to be released by the company, and the latest developments with respect to changes in the Diplomacy rules. The following was the response from John R. Moot, President of Games Research:

". . . All of the games shown on our catalog sheet, which I am enclosing, are available and may be purchased by mail at the prices shown, post prepaid.

"Concerning new games, we do have one in preparation, called INSIGHT. This game is more a party game than an intellectual challenge. Each person in the group attempts to classify everyone else according to their personality. This is done by means of a series of pictures depicting different alternative situations that might appeal to an individual. For example, under the heading of Romance, there are about eight different romantic situations depicted; and each player must select the scene that he considers most romantic for himself and also, what he believes each other player will select. There are a number of different categories such as this; then there is the general overall personality evaluation. The winner of the game, of course, is the person who depicts the characteristics of all other players most correctly. In fact, however, the fun is in the playing of the game. In particular, it is interesting to see how frequently husbands and wives mis-evaluate each other. I expect the game of INSIGHT will be out early in 1968.

"Concerning changes in rules of DIPLOMACY, Mr. Calhamer has not come up with any final determination. If anyone has specific sections which he feels could be re-written for greater clarity, we would be glad to receive them in considering incorporating them in our next printing. I am aware that there are some points about the game that are not adequately covered.

"I look forward to seeing the next copy of your interesting publication. We do appreciate the interest you have stimulated in our games."

And, in response to a question we asked in another letter, concerning price and availability of Diplomacy conference maps (paper maps, for those of you who are not familiar with the game, used for keeping track of specific situations) and rulebooks, Mr. Moot writes:

". . . The DIPLOMACY conference maps are available 25 for \$1.00 or 100 for \$3.00. The rulebooks are available, but the price is \$2.50. I realize that this appears exorbitant, but it is the heart of the game."

The catalog sheet to which Mr. Moot refers in his first letter appears in this issue of THE GAMESMAN, immediately following the Games Research article. As for the Diplomacy conference maps and rulebooks, we were interested in their price and availability in order to be able to answer questions concerning same from new postal players. In order to play the game of Diplomacy through the mails, all that is really needed are a supply of paper conference maps and a rulebook. However, those persons who take the game at all seriously will want to set up a position during a game, in order to play out several alternative choices of action -- and they will want to replay published games to increase the depth of their knowledge; for this, the paper boards are inadequate, and purchase of a complete set is almost mandatory. Also, across-the-board play is different in many respects from postal play, and for this you will also need a complete set. Persons who are interested in the game of Diplomacy are therefore advised to start out with a complete set, and purchase an additional supply of conference maps as a supplement to, rather than a substitute for, the complete set. \$7.50 may seem high to some persons, but we can assure you that it is one of the best buys you will ever make in the way of games. Order direct from Games Research; or, if you're very lucky, the Brentano's near you may have a set in stock (believe it or not, we saw several sets in a toy discount store a couple of weeks ago!).

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HISTORY OF GAMES RESEARCH
by John R. Moot*

In mid-January of 1960, a group of us met to try out a game about a presidential political convention. The game, which was simply a number of cards and a large piece of paper on which the board had been marked out in pencil, played well. Encouraged by this, we had high hopes of making our fortunes by selling millions of sets during the presidential election year. We rushed the production of the game (we named it, appropriately enough, CONVENTION), and had it on the market as early as April of the same year. In order to give it greater mass sales appeal, we packaged it in an unconventional manner -- in a tube with a cloth-textured paper board which rolled out. We convinced many distributors (as well as ourselves) that this would be a fast-selling game during the convention season.

Unfortunately, we did not make our fortune on this one-shot effort. Although we sold 25,000 games or more, promoting sales was expensive and ate up all potential profits.

In retrospect, we learned from this venture that it is extremely hard to sell games in the springtime, and that it is questionable whether unconventional packaging is wise, even though it may reduce the retail price. We also discovered that games which are of a topical nature die so rapidly that it is hard to earn a return on one's investment in them. Since that time, we have always preferred games with a long life, and have concentrated our promotional efforts in the fall, when games sell best.

While we were struggling with CONVENTION, several of us ran across DIPLOMACY, which was then being marketed by its inventor, Allan B. Calhamer. It was being sold on a limited basis through a few outlets around Boston and New York, and had caught hold quite well in the Harvard community.

We took DIPLOMACY over from Mr. Calhamer in 1961. I recall going to his house and moving out the inventory he had stored under his bed, in his closets, and in his living room. He had been manufacturing and selling the game right out of his own home.

With DIPLOMACY we have done little more than improve the packaging somewhat and broaden the distribution. In our opinion, the game is ideal, in that it sells itself by word-of-mouth -- which is the true test of a good game. Promotion efforts with stores can only introduce people to a game, and are seldom profitable unless the game carries on and sells itself afterwards.

DIPLOMACY is an unusual game, with appeal only to what I would classify as "true game-lovers". It has always been of interest to me that the game has sold extremely well in the Harvard community, but has been less than successful in the Yale and Princeton stores. People frequently ask me who buys DIPLOMACY, and I have found it impossible to categorize the individuals. There seems to be a strong demand among college students, and thereafter it is among those true game-lovers, who are, of course, spread thinly throughout the country. Some are engineers, but others are lawyers, professors, and the like. Maybe some of our readers could classify the DIPLOMACY players better than I.

Since introducing DIPLOMACY, we have had a number of games submitted to us by inventors. We receive a couple of hundred every year. Most of these can be thrown out as not appropriate for our sales, but we do get a few which are of potential interest.

*President, Games Research, Inc.

What makes a good game? In evaluating games we have to set up some criteria as to what makes a game a possible success for us. The criteria we have established are:

1. The game must be intellectually challenging. Success in it must be much more dependent upon mental competence than on chance.

2. The game should be different every time it is played. If it does not present a different challenge each time it is played, the players will tire of it very quickly, and will have no urge to play it again.

3. There should be interaction among the players. We do not feel that games which are simply a race of one player against another are satisfactory. For example, there are a number of stock market games where there is very little interaction among the players -- it is simply a question of who can amass the greatest fortune in the least amount of time. DIPLOMACY, on the other hand, has a large amount of interaction among the players, which makes it a good game.

4. There should be some basic new feature in the game, with respect to the way it is conceived or played. Simply to take an old principle such as that used in MONOPOLY and revise the game into a new form would not be satisfactory. We look for games with a novel feature which makes them quite distinctive, so that our games do not compete with a number of similar games, but rather stand on their own. Thus, certain features in our games which players find of interest are found only in our games, and the players have to return to our games to find more of the same.

5. There should be some humor in the game, if possible. In DIPLOMACY there has been a little humor in some of the games which I have played, although many players take it so seriously that humor never appears. We do not rate the importance of humor above all else, but do feel it is an asset if it is in the game.

6. The game must be capable of selling by word-of-mouth. We are a small manufacturer, and cannot push a game down the throats of the consumer by advertising, but, instead, must depend upon word-of-mouth sales. In our opinion, the ultimate test of a good game is its ability to sell by word-of-mouth.

I would be very much interested in hearing comments from others as to what, in their opinion, makes a good game.

Our newest game is WHAT'S THAT ON MY HEAD?, which is a game of logic using cards placed in racks on the heads of the players. The players, in succession, answer questions about what they see on the heads of the others. From the answers given by the others as to what they see, a player is expected to reason out what is on his own head. This presents a real challenge in logical reasoning. Judging WHAT'S THAT ON MY HEAD? by the criteria discussed above, it is strong on mental challenge; it has a touch of humor in that the cards on the heads of the players provide a somewhat bizarre atmosphere; and it has a basically new feature of play which is not found in any other game. On the other hand, it has less interaction among players than would seem desirable, and it is not as sufficiently different each time it is played as is DIPLOMACY. Whether or not it will prove successful in terms of word-of-mouth sales is yet to be determined.

In closing, I would like to repeat that I would like very much to hear from the readers concerning their own criteria for a "good" game, and I would be very much interested in learning what games they have played over the years, in their opinion, most successfully satisfy these criteria.



ADULT GAMES

by

Games Research INCORPORATED

WHAT'S THAT ON MY HEAD?

A fascinating game involving deduction, logical analysis, and a little luck in guessing the cards on your head. Each player sees everyone's cards but his own. Answers to questions give the clues.

For 3-6 players. Packed in eye-catching box, the game includes card racks, letter cards, question cards, and analysis sheets.

\$500

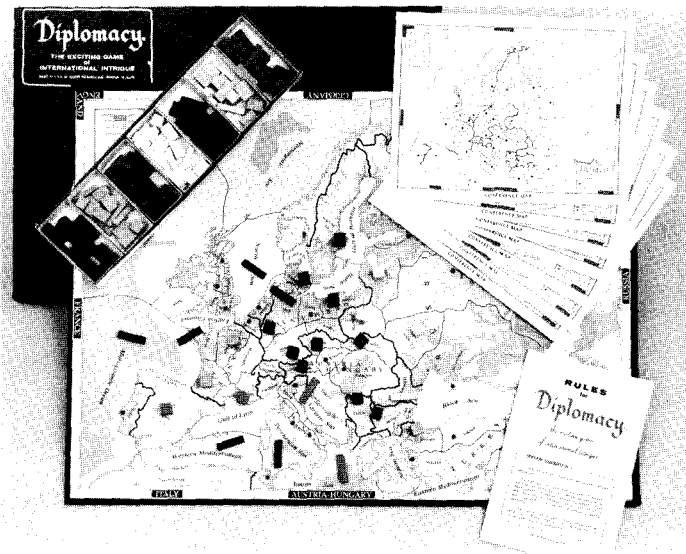
Diplomacy

The Exciting Game of International Intrigue

Diplomacy is a game of skill and cunning negotiations. Chance plays no part. Around a 1914 map of Europe, 4 to 7 players try to deal and double deal their way to control of the continent.

For 4 to 7 players. Diplomacy set includes large 19" x 26" full-color game board, 112 army and navy tokens, and 7 conference maps.

\$750



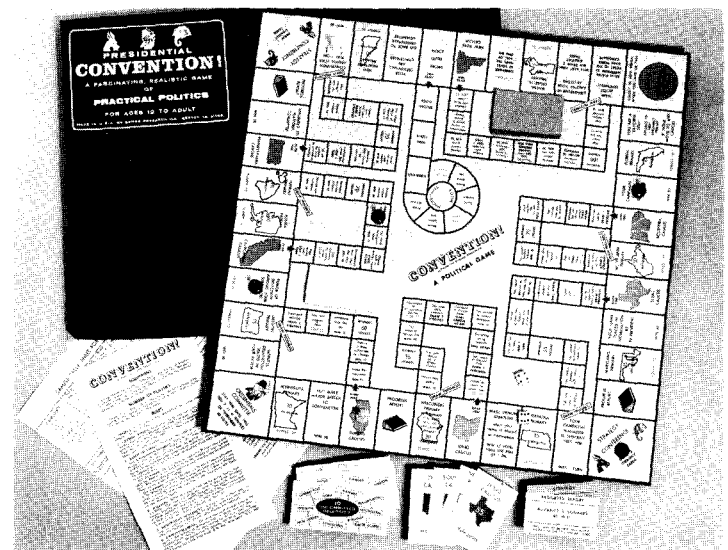
CONVENTION!

A Fascinating, Realistic Game of Practical Politics

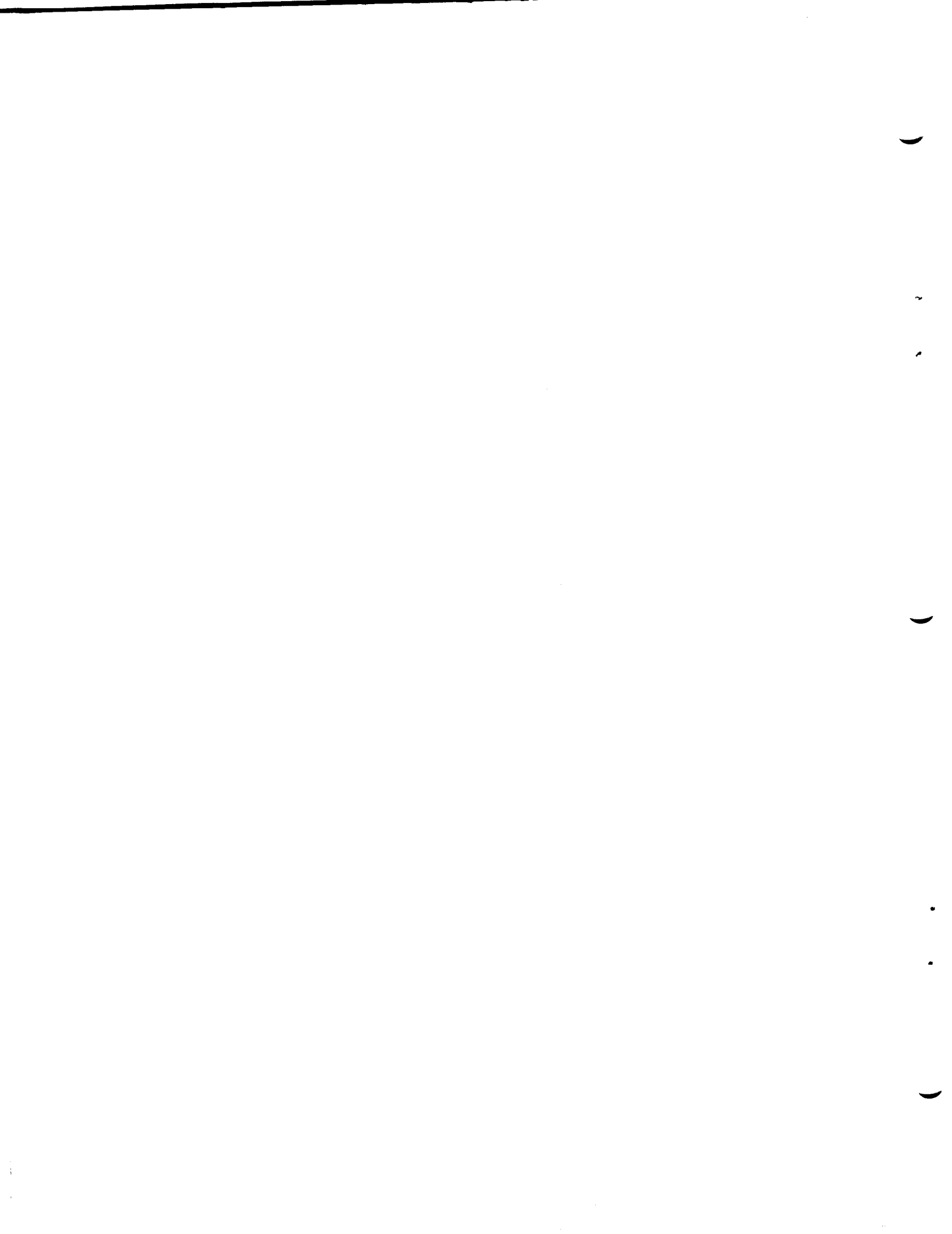
Convention is a contest among 2 to 6 players to win nomination for President of the U. S. Delegates, primaries, caucuses, bandwagon sentiment, and demonstrations all play a part, with the smoke-filled room of the party bosses available to the desperate candidate.

For 2 to 6 players, the game includes 19" x 19" board, caucus and primary cards, delegates, strategy, and progress cards, ballots, tokens and dice.

\$500



Made in U.S.A. by
Games Research Inc.
 48 Wareham Street
 Boston, Mass. 02118



THIS ALMOST WAS CHESS

by John Boardman

Most modern Chessplayers know enough about the history of the game to be aware that the pieces did not always have their present powers. The game which was played in the Arab world during the middle ages was a considerably slower game, owing to the lesser powers of some of the pieces. Rooks and Knights moved as they do now, but the Queen could move only one space diagonally; her chief function was to defend the King against attack. The Bishop (or, rather, the piece which is now called the Bishop) was even weaker; it could go two spaces diagonally, neither more nor less. The intervening square could be leaped over if it were occupied. In this article, the Queen and Bishop will be called "Ferz" and "Elephant" respectively, after their former names, when pieces with these older powers are meant.

In the old Chess, Pawns did not have their present initial option of a double step. Their other powers were the same, except that a Pawn could be promoted only to a Ferz. Castling and en passant capture did not exist. The game could be won by either checkmating or stalemating the enemy King, or by stripping him of his entire army.

This was the Chess of Haroun-al-Rashid, of the medieval romances, and of Caxton, who in 1475 printed the first book in English, a translation of a German manual on Chess. But already the old game began to appear too slow for European tastes. By the beginning of the 16th century, the modern rules (except for local variations concerning castling) were beginning to catch on.

But the modern game was not the only modification which occurred to European players. While Italian and Spanish masters were writing the first treatises on Chess "alla rabiosa", a different modernization was in progress in Germany. The German variation, which took the name "Courier Chess" from the name of one of the new pieces, was for a while widely played in that country; (1) paintings exist of people playing on the distinctive 12 x 8 board which the game required.

For Courier Chess adopted a suggestion, made much earlier by the avid Chess fan Timur the Lame, that the game board be expanded. The Courier-Chess board consists of 8 ranks and 12 files; the ones in the paintings are checkered, a fashion which was just then coming into use in 8 x 8 boards as well.

In addition to the familiar pieces of medieval Chess, the following new pieces were introduced:

The Courier ("Kurier") -- This piece had the powers of the modern Bishop. It was, however, an independent introduction, since Courier Chess also retains the Elephant. In present-day Germany the Bishop is called "Läufer", which can also be translated as "Courier". This name is possibly a retention of the Courier-Chess piece.

The Spy ("Schleich") (2) -- This piece moved orthogonally as the Ferz moved diagonally -- one step forwards, backwards, or sideways. Like the Ferz, it was primarily intended to defend the King. Before the development of castling, which is absent from Courier Chess, pieces for this purpose were necessary. A frontal attack on the King had to break through a formation of such lesser pieces.

The Adviser ("Mann", in the sense of a "vassal") -- This piece had the same move as the King, but could be taken like any other. Although it was primarily a defensive piece like the Ferz, the Spy, and the Elephants, it would also be quite formidable on the offensive.

The Pawns did not have the initial double-step of the modern game, and could be promoted only to Ferz. The Ferz, on its first move, could move out to its 3rd square. The game could be won by any of the three methods of the medieval game.

The relative values of the pieces can be inferred without much difficulty. As in the medieval game, the Rook is the most powerful. Since the Courier-Chess board is half again as large as the conventional board, a Courier would be worth more than a Knight. The Adviser is also worth more than a Knight, reckoned to be between a Knight and a Rook in value; King and Adviser against King can force checkmate.⁽³⁾ The Spy can go to all squares and thus would be worth more than the Ferz, which is restricted to only half of them. Despite the greater valuation placed on it by medieval theoreticians, the Elephant should bear a lesser value than the Ferz.

From the White side of the board, the pieces from left to right are: Rook, Knight, Elephant, Courier, Adviser, King, Ferz, Spy, Courier, Elephant, Knight, Rook. (In the sample game to follow, these will be indicated by their initial letters except for the Knight, which is given the usual "N".) By convention, the first four moves on each side were: P-FR4, P-F4, P-KR4, and F-F3. (For these moves the Pawns could make the double-step of today's game.)

A sample correspondence game follows:

White (J. Boardman)

Black (W. Sieber)

1. P-FR4
2. P-F4
3. P-KR4
4. F-F3

- P-FR4
- P-F4
- P-KR4
- F-F3

The game really starts here.

5. P-S3

- P-A3

Lines are opened up for the Couriers to defend already developed men.

6. N-FE3
7. P-S4

- N-FE3
- PxP

This is not such a good idea. By recapturing, White is now in a position to plant a protected Pawn on the freshly opened diagonal. Better would be 7...P-S3, defending the FP and opening a line for the other Courier.

8. FxP
9. R-KR3

- N-E3

This seems to be the usual way for a Rook to make his appearance in Courier Chess. It should be done before the opposition has a chance to bring a piece to bear on its R5 squares.

9. ...
10. N-E3

- C-K3

Initially, the NP's and the FCP are unprotected. They are therefore good points to probe in this fashion, as Black ties down a White Knight.

10. ...
11. P-F5

- N-A4
- C-A2

And the Knight's protector is driven away.

12. R-N3

Black's counter-threat to the Rook is met by a counter-counter-threat to the vulnerable KNP.

12. ...
13. CxN

- P-KN3
- resigns

Black would have done better to cut his losses by 12...P-KC3; 13. RxP, A-C1.

Courier Chess can be set up with two Chessboards and two sets whose men are of different sizes. One board can overlap the other so that the 8 x 12 Courier-Chess board is formed. The K, Q, and B's of the larger set can be the King, Ferz, and Couriers respectively, while the K, Q, and B's of the smaller set are used as Adviser, Spy, and Elephants.

Courier Chess never seems to have gone beyond Germany. Its failure to compete with the modern version may be attributed to several factors. For one thing, Germany had then less cultural prestige than Spain and especially Italy; in the 16th century any Italian innovation was soon being tried in every court of Europe, while Germany was regarded as a land of dullards. In fact, the total shattering of German culture during the religious wars made her a vacuum to be filled, rather than a source of new ideas. And Courier Chess retained the Elephant, the Ferz, the single Pawn step, and other features of the slower medieval game which could not compete against the exciting possibilities opened up by the modern Queen-move and the greater power of the Pawns.

Can Courier Chess be rehabilitated? One natural suggestion is the Pawn double-step. And the slow, defensive pieces of the older game might be replaced by wider-ranging units to which the 96-square board would give greater scope. Just as the Queen compounds the powers of the Rook and the Bishop, there might be a Rook-plus-Knight and a Bishop-plus-Knight. (Such pieces were first suggested by Carrera in 1617, and by many others since. He called them "Centaur" and "Champion", respectively; they are now most commonly known as "Empress" and "Princess".) The Knights might be replaced or supplemented by "Nightriders" -- super-Knights which can continue in the direction of a Knight's move as far as the squares are unoccupied. (For example, on an 8 x 8 board a Nightrider on K1 could go to QB2, QR3, Q3, QB5, QN7, KB3, KN5, KR7, or KN2 if the intervening squares were free.)

The adviser might be worth keeping; it could be an effective piece for "close-work". As a start, we might replace the Elephants by Princesses, and the Spy by an Empress, and give the Ferz the powers of a Queen. Or perhaps the Elephants could be replaced by Nightriders, the Adviser by an Empress, and the Spy by a Princess, again making the Ferz a modern Queen. En passant capture and free promotion would of course accompany the modern powers given the Pawns.

(1) Courier Chess seems to have originated in Germany in the 13th century, and to have been played as late as the 19th century. The principal center of this variety was the town of Ströbeck, which had a German reputation as a place where the devotion of the inhabitants to Chess had long since passed the stage of a mere mania.

(2) "Schleich" is usually translated "Fool", but I think that "Spy" is more accurate. "Schleich" connotes a fellow who is always sneaking around to no good ends.

(3) An early Arabic variation on Chess was played on a 10 x 10 board, with an Adviser (called "Dabbaba" by the Arabs, which was the name of a piece of siege machinery) between the King and one Elephant, and another between the Ferz and the other Elephant. (In another variation of medieval Chess, Arabs gave the name "Dabbaba" to a piece which moved rectilinearly as the Elephant moved diagonally -- a jump of two squares, neither more nor less.)

((If you enjoyed this article, you may also be interested in John's magazine on Chess and Chess Variants, STROBECK -- published bi-monthly, with two issues published to date -- 25¢ a copy, 5 issues for \$1.00 -- from John Boardman, 592 16th St., Brooklyn, N.Y., 11218. Highly recommended to lovers of Chess and its by-ways. For additional information on Courier Chess, we refer you to Murray, H.J.R.: A HISTORY OF CHESS (Oxford, 1913); Murray, H.J.R.: "The Courier Game" (BRITISH CHESS MAGAZINE, October, 1902); Boardman, J.: "Courier: The Chess that Almost Was" (STROBECK, August, 1967). --ed.))

A FEW NOTES ON GO

Through the generosity of Mr. Carlson, who donated 100 copies of his Go rulesheet to the Games Bureau, we are able to pass on to our readers one of the best and most concise Go "primers" we have ever seen (beginning on next page). We hope that this article will induce a few more of you to explore the many aspects of the game of Go.

Go is the "coming" game in the world today. In fact, many persons who are familiar with both Chess and Go feel that Go will eventually replace Chess as the leading game among Western intellectuals (it is already the leading game among intellectuals in the East). Go is the easiest game to learn to play -- there are practically no rules -- but one of the most difficult to learn to play well. The unique handicap system makes it possible for anyone to play the game with anyone else -- beginner with Master, husband with wife, father with son -- and enjoy a challenging game. One of the oldest games still being played (it's more than 1,000 years old), Go today is virtually unchanged from the Go of the earliest records -- a testament to the excellence of the game. But be forewarned -- the game is addictive; once you've played a few games of Go, you're hopelessly "hooked". Other games pale in comparison; you go off your Chess game because it now seems to simple. But, worst of all, you spread the habit to others, corrupting your friends by teaching them Go so they'll be "hooked" and you'll have more opponents....

Mr. Carlson, who also authored the two excellent articles on Go which appeared in issues 2 and 3 of THE GAMESMAN, has had to cut down on his Go activity recently because of job pressures. As a result, he has had to give up his Go column in NOST-ALGIA (the bulletin of the NOST -- "Knights of the Square Table"), and will be unable to write any more Go articles for THE GAMESMAN. We thank him for all he has already done for us, and wish him success in his new advertising agency.

We remind those of you who are interested in Go that there is a Go Division in the Games Bureau, headed by Jared Johnson (1548 Rochelle Drive, Chamblee, Ga., 30005). This Division has been suffering from lack of members, and we hope some of you newly converted enthusiasts will join to keep the Division from folding. We also hope some of you will send us material on Go for future issues of THE GAMESMAN.

A Go bibliography will appear in a future issue of THE GAMESLETTER and in the next issue of THE GAMESMAN. It should also be noted that Jared has a Go column in THE GAMESLETTER, which will help you keep abreast of current Go activities.

In case you'd like a separate copy of Mr. Carlson's Go rulesheet, but wish to keep your copy of THE GAMESMAN #4 intact, a few loose copies of the rulesheet are available from us at 25¢ each (20¢ to Regular members of Games Bureau).

Solution to "Puzzle" in THE GAMESMAN #3:

Let the letters A, B, J, S, and W stand, respectively, for the five bird-fanciers Baker, Brown, Jones, Smith, and Williams. Denote their wives' cats by the symbols A/c, B/c, etc., and their favorite pigeons by the symbols A/p, B/p, etc. We then have the following diagram (in which x and y have to be identified with two of the symbols A, B, etc.):

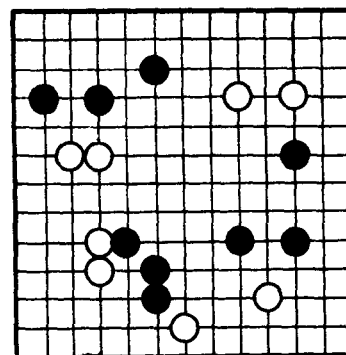
	<u>Fanciers</u>	<u>Cats</u>	<u>Victims</u>
1st clue	A	A/c	x/p
1st clue	x	x/c	W/p
2nd clue	B	B/c	A/p
3rd clue	y	y/c	S/p
3rd clue	J	J/c	y/p

Now, since x is obviously not A, B, or W, and y is not A, B, J, or S, y must be W, and it follows that x is J. With 4 of the 5 lines now completed, the 5th can only be S -- S/c -- B/p. So, we see that Mr. Brown's pigeon was killed by Mrs. Smith's cats.

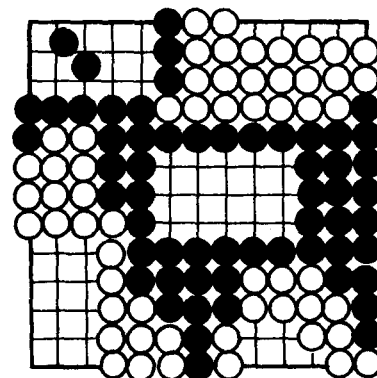
By Noble D. Carlson, 2211 Cranston Rd., University Heights, Ohio 44118

CHARACTER: Go is the oldest, greatest, and most fascinating game of all, and its measured handicap system balances any two players, regardless of age, skill or experience. Its formidable reputation hides the important fact that one basic rule generates and governs every event, except for 2 infrequent special cases. These three pages (to be reprinted) contain everything you need in order to begin playing. **EQUIPMENT** consists of a natural finish or yellow-stained wooden board roughly 16" square, which is scribed with a grid 19 lines by 19 lines (13-line boards are shown on these pages, for simplicity.) A bowl of lens-shaped black slate "stones" and another of white shell complete the traditional equipment.

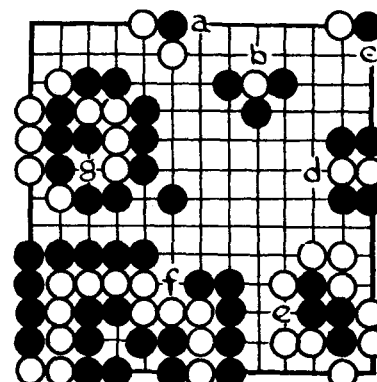
PROCEDURE: Play begins with a bare board. Black and White alternately add single stones, anywhere on the board, but on the intersections, not in the squares. Stones are never moved. The better player takes white. Black plays first, and will often need from 2 to 9 handicap stones, sometimes more. Black's handicap stones are arranged in certain patterns. They are his first play. White then plays one stone, Black another, etc. Somehow each handicap stone will gain Black just about 10 points of territory more than he could get without it. At right, a no-handicap game has begun. In any game, the opening usually proceeds with the players rough-sketching the territories they hope to secure eventually.



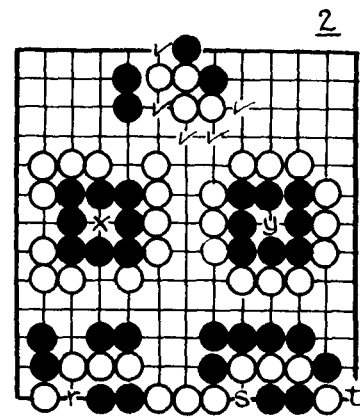
OBJECTIVE: Simply to obtain more territory than your opponent! (Counting bare intersections within the final forms, including points on the perimeter of the grid, which is a ready-made boundary) To better understand "territory", count the intersections in the diagram at right, which represents the end of the game begun above, and is already processed for scoring, with the interiors arranged in rectangles for easy counting. Black owns 15 points at center, and 13 NW, for a total of 28. White has 15 points SW, 5 SE, and 5 NE, for a total of 25. Black wins the game by 3 points.



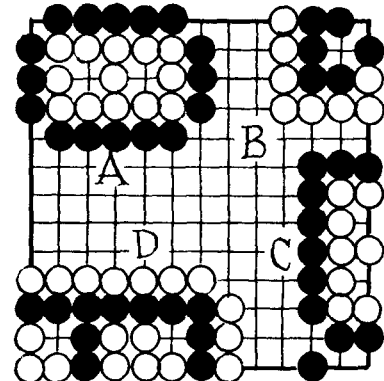
THE ELEMENT OF CAPTURE: Territory is also gained by surrounding and capturing enemy stones, which are immediately removed, leaving a patch ringed by the captor. Captives must be completely coated on all sides; the "inside" as well, in the case of an enclosed form. At right, clockwise from North: These plays will capture one or more enemy stones: White "a", Black "b", White "c", Black "d", White "e", Black "f". Note: Whoever got to "g" first, would capture four enemy stones! At the time of scoring, captives are put in enemy areas, reducing them. Thus, each captive is worth two points of territory: The one on which it sat, plus another taken from the enemy. Note: Friendly stones touching on horizontal or vertical lines are connected; forming an indivisible unit that can only be captured in its entirety.



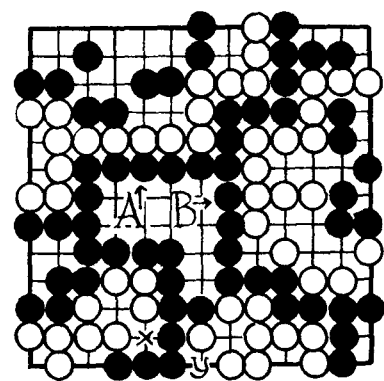
THE SINGLE RULE THAT GOVERNS GO: The stupendous variety of Go branches from one single basic rule: "Stones or groups with liberties may lie on the board; those without may not". "Liberties" are bare intersections next to stones and on the same lines as the stones. Checks illustrate the liberties remaining to the whites at "A". Note: to play on the last liberty of enemy stones is "surrounding and capturing" them. Because of the rule demanding liberties, one cannot play where already surrounded unless that play makes a capture, thus creating new liberties for itself. For example, White cannot play at "x" as yet, but can play at "y", because it effects a capture. Black cannot play at "r", but can play at "s" or "t".



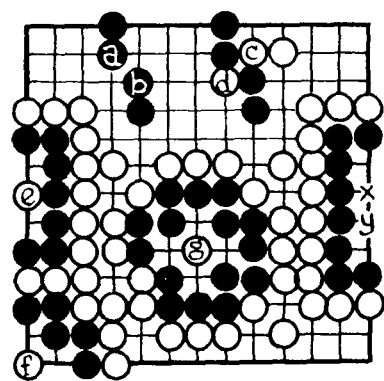
SAFETY: "TWO EYES" The only forms immune from capture and surviving to have their territories counted are those which have, or can make "two eyes". (Two or more separate openings within the form.) No special rule, this is a direct product of the basic rule: "Stones or groups with liberties may lie on the board: those without may not". Note A, B, and C at right: Though coated outside, each has two eyes, and the foe may not play upon either eye, because one may not put a stone where it has no liberties, unless it makes a capture. The would-be captor can occupy neither the second-last liberty, nor the last! If an eye contains several points, the foe can play inside, but eventually play reaches the same point. (See "D".)



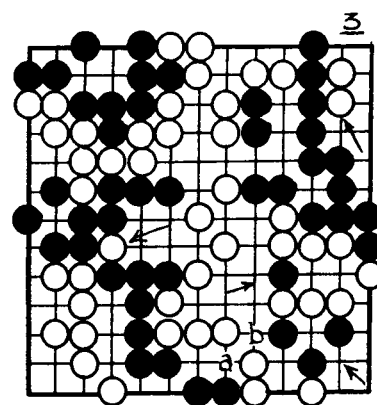
HUGE EYES AND "FALSE EYES" If an eye (enclosure) is too huge, the foe may actually build a secure group within it. As a result, the formerly two-eyed host becomes a mere topological ribbon having but one eye, like the doomed whites at "A". An intermediate case is shown at B. Black and White are both fighting for their lives. In such cases the outcome depends on skill; and if the fight is close, often upon whose turn it is! **FALSE EYES:** When making eyes, do not let them become "false eyes". (Eyes with unconnected rims susceptible to capture or collapse.) At bottom, both white forms have false eyes. Who plays first at "x" and "y" determines safety or capture for White.



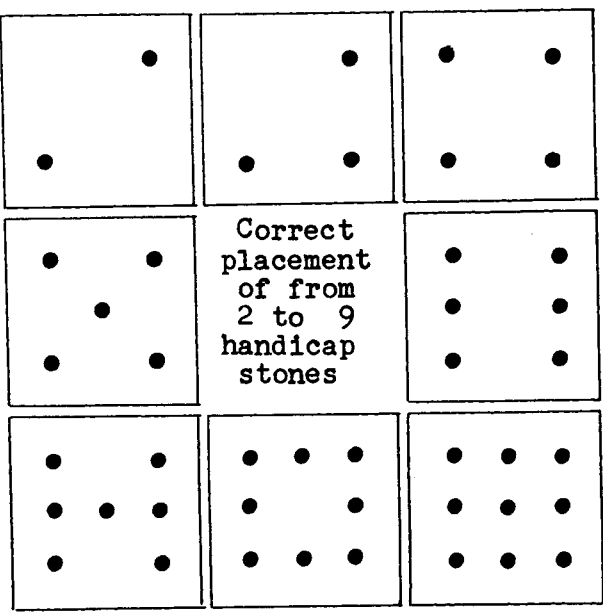
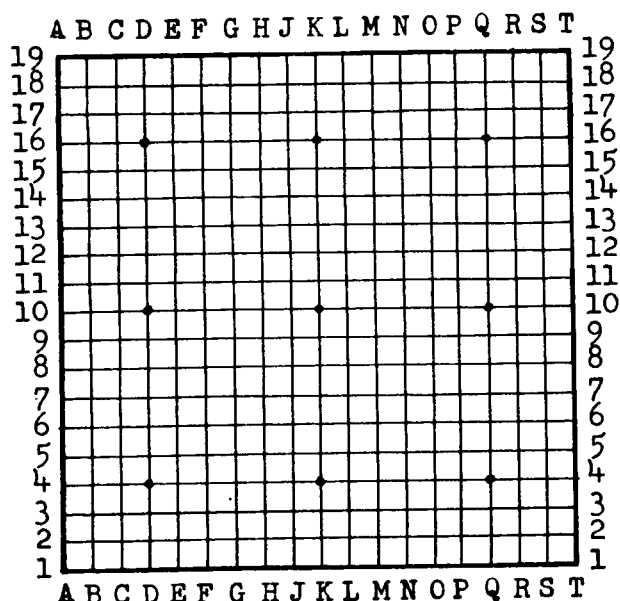
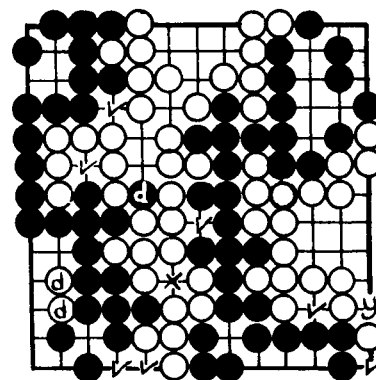
CUTTING & SACRIFICES Diagonal stones, such as "a" and "b" can be "cut" if ignored. Example: White "c" probes, Black fails to connect, and White "d" makes the cut. The lines now interpenetrate and perhaps Black will capture White; White, Black; or perhaps all four segments will become safe independently. **SACRIFICES:** If a form contains only one small opening, the foe can sometimes play a sacrifice stone inside, in such a way that the host can never form "two eyes" after the sacrifice is captured! Whites "e", "f" and "g" are examples. Some interior forms are sacrifice-proof. Example: If White plays at "x", Black can make two eyes by playing at "y", and vice-versa.



WHAT ARE "DEAD MEN"? They are stones too hopeless to bother capturing although they still own liberties and so remain on the board. They are isolated, unable to capture their way out, and lack enough room to build a safe new formation. Examples are shown at right. (Arrows) Dead men will be removed at the end of play and added to captured comrades. The enemy will not capture dead men, because they are already his, and capturing would require playing within his own territory, reducing it. Notice; If enemy walls become weakened, dead men can come alive! At right, the three blacks Southeast are dead, but if Black plays at "a" and White fails to seal at "b", Black can "cut" at "b" and capture the three whites, thus gaining life!

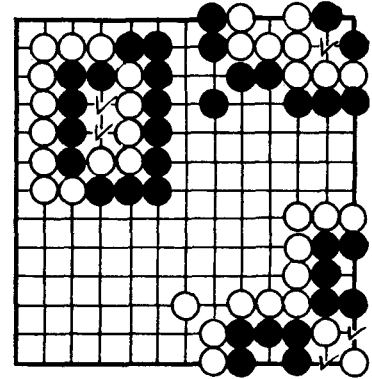


SCORING: A player may "pass" once or more, if he sees nothing left which can affect the score. He resumes his turn if danger develops. When both players pass, the game is over. **STEPS:** 1. Fill neutral patches between Black and White. (Checks) Use stones from either playing bowl. This often reveals unsealed points such as the false eye "x" and unfinished joint "y". (Both to be filled by White, here.) 2. Remove dead men ("d"). Add them to captives. Use them to fill up and reduce territory their color. Arrange interiors in rectangles 5 or 10 points long. (Easier on a 19-line board.) Players arrange and add up each other's territories. The difference is the final score.

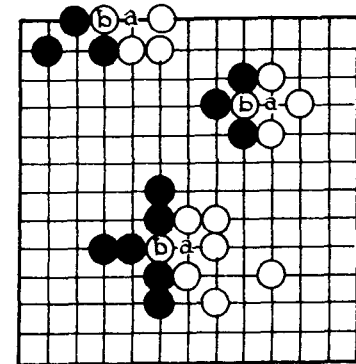


COORDINATES, AND PROPER USE OF HANDICAP STONES At left is a standard 19-line board, with the addition of the standard coordinates used when referring to any particular intersection. The nine "stars" on the board merely help to place handicap stones. The better player is always given White, Black taking his handicap if any, or playing first in an even game. Each of Black's handicap stones is worth about 10 points (Example: A loss by 40 points in a no-handicap game suggests a 4-stone handicap.) Handicaps are adjusted by one stone whenever one player wins three successive games against his opponent. The handicap counts as Black's first play, White then playing his first stone, Black another, etc. Naturally, the handicap will vary, between any two players.

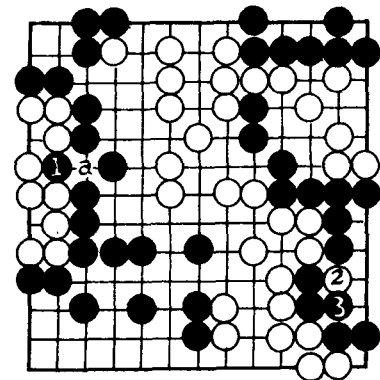
SEKI A "Seki" is a permanent impasse, with the players surrounding each other in such a manner that neither can attempt to capture the other without being captured first! Naturally, both sides refuse to make the suicidal attempt, and, the rule is that the intersections between them remain forever neutral, and are not counted in the score. Seki is rather rare, but occurs or can be created in a variety of patterns. They are not hard to recognize. Some are shown at right. Note: Whoever plays at one of the points checked could be captured immediately by the foe since it leaves both with one last liberty.



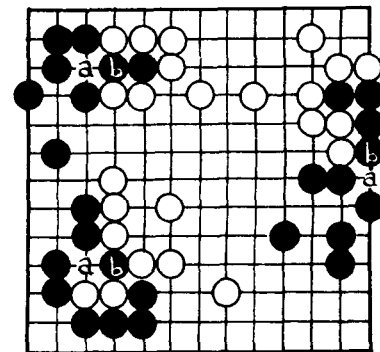
KO Situations like those at right are called Ko. Note that if Black played at any of the points marked "a", he would capture a single white stone whereupon if White replayed at "b" he would capture the black, in a senseless see-saw that could go on forever. The special Rule of Ko prevents this by stating "When a stone is taken in a Ko, the loser may not retake immediately, but must first make at least one play elsewhere before returning to retake in the Ko." At that point, the original captor could seal the hole if he chooses to do so. Ordinarily, a Ko is a small issue, and is ignored until near the end of the game. Then, smaller details are usually attended..however....



....A Ko can occur at some critical point where who seals it determines the life or death of many stones. (Note the Ko at "a", right.) A Ko Battle will result, each player trying to delay the other from sealing the Ko, by means of creating greater threats elsewhere. The one who succeeds in finding the greatest number of effective counter-threats will finally get to seal the Ko, winning the original battle at that site. At the right, Black 1 just captured a white at "a" (Ko), and White, not yet permitted to retake, plays at 2 to create a bigger threat, Black 3 following in answer; whereupon White 4 is played at "a" in order to retake the Ko..and now, Black must find a counter-threat elsewhere, etc.



SNAPBACK A Ko is a one-for-one trade, and is governed by the Rule of Ko. The "Snapback", however, is different and should not be confused with a Ko. A Snapback is any two-for-one, three-for-one (etc.) trade, and as the name implies, the trade can be made immediately. Several examples of the Snapback are shown at right. Note in each case, that a white at "a" would capture one or more blacks, Black then being permitted to replay at "b" immediately, capturing more or fewer whites in trade. Warning: A Snapback can sometimes turn into a Ko and if it does, it then becomes subject to the Rule of Ko, given in the second paragraph above.



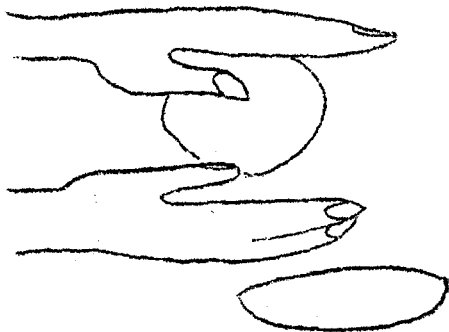
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HANDMADE GAME-PIECES
by Alma Hill

Handmade game-pieces have many advantages of convenience and artistic satisfaction. Just recently we learned that the Mexican Chess set which ornamented the cover of THE GAMESMAN #2, is a design created by the well-known science-fiction author, Katherine MacLean. It would be interesting to find out how many original designs there are, or might be produced, in addition to the familiar Stanton pieces.

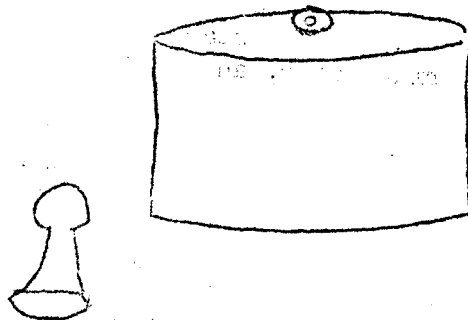
This article will discuss some simple materials and methods for pieces not carved, but modelled, as is done with ordinary sculptor's clay but with less fragile materials.

To begin with the simplest material and shape we have found -- one could make a copious collection of Go-stones with ordinary patching plaster. This mixes easily with plain water into a plastic material that can be shaped by rolling between the palms; then bring the hands slightly together to produce a flattened oval, or flying-saucer shape, and there's your game-piece. For the other color, usually slate gray, mix a little black ink or shoe polish with the water. The pieces set hard in an hour or so, but may need a day or more to dry out completely. Then they should be coated with clear lacquer, or some such surfacing as clear primer paint, because they can then be washed occasionally -- who wants to use grimy game-pieces, especially if they are supposed to be snowy-white?



The surface coating will also reduce wear and crumbling. These pieces are fairly sturdy once they are painted. I dropped one on tiles and stood on it -- no damage. A hammer cracked it, but who hammers on game-pieces ordinarily? The material can be bought in any hardware store, and costs very little. However, the wet plaster does not hold any but the simplest and blobbiest of shapes. You can make Go-pieces or checkers, and what else? Bingo counters -- you can have either a convex or flat or stamped surface, but you aren't likely to get anything fancier such as a Chess Pawn.

The next-easiest substance, we still feel, is papier-maché made of paper torn into fine strips, soaked in water, reduced as near to pulp as is easy to do (we recommend an electric blender for big results in small batches), drained somewhat, and then mixed to plasticity with ordinary flour, or, preferably, paperhanger's wheat paste. The latter gives a tacky but more workable texture than flour paste, costs very little, can be bought in any hardware store, and takes up water instantly whereas flour is lumpier and messier and slower. You can mold this into any shape you want, and in fact there seems to be a reviving vogue for the use of papier-maché as a basis for arts and crafts. The result takes awhile to dry, and can't be painted until fully dried because otherwise the paint will blister. Meanwhile it may warp and is apt to have a rough surface in need of sanding unless you like rough textures. But it is the sturdiest of all substances; an axe isn't likely to dent it. Just be sure to waterproof the surface somehow, for papier-maché takes up water and will then mildew, lose its shape, and bring disaster to the game sets. Recommended paint -- model dope in colors to suit your fancy.



Before we leave the subject, remember that it is very simple to make all the game-boxes you want, using this material. Don't bother to macerate the paper and reduce it to pulp -- though you can use that if you have any extra. Just use any box or dish as a mold, cover it with saran or any plastic film (the stuff is tacky and sticks to molds as well as itself unless you take precautions), and dip strips of newspaper in thin paste and build up a few layers. Let them dry on the molds -- box and cover -- and then paint to suit yourself; make gifts that way if you want your friends to feel appreciated. No two are alike when you make your own, and no gift-shop will steal your thunder.

The easiest of all substances to actually mold is probably salt-dough, made with either flour or cornstarch. Flour makes a tougher result, but cornstarch pieces have a somewhat smoother surface. I have sent such pieces through the mails, so they must be fairly durable if you add a coat or three of model dope as a finish.

Anyone who has ever made pies will recognize the piecrust feeling of this stuff, incidentally. But each piece must be molded as a whole -- if any top knobs break off, as they do rather easily before painting, it is hard to find a glue that will stick them back on. But it dries to a smooth surface without warping, except that it may hollow itself inside during the drying process, increasing its fragility.

The formula for cornstarch salt-dough can often be found on a box of cooking-starch, in case you lose this or forget it:

1. Make sure of a good supply beforehand; don't rely on the pantry but get a new box of salt and a new box of cornstarch. You can make a great number of game-pieces at trifling cost from this much raw material.

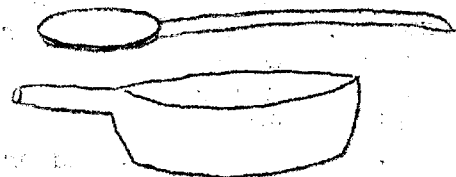
2. Take any saucepan or skillet that gives you room to stir freely, put in 2 cups of salt (you see, you needed a good full box to start off) with $\frac{2}{3}$ cup of water. You can guess at the amount if you are a good guesser, so don't worry about exact weights. You can add food coloring at this point, though it seems to make better sense to color later, as it needs some sort of surface protection anyway.

3. Stir and heat the wet salt until you get bubbles and steam -- it may take 2 or 3 minutes; you can't be exact and can use your own judgment. This is not a fussy recipe; the main thing is that the heated salt and water will make the starch swell up rapidly.

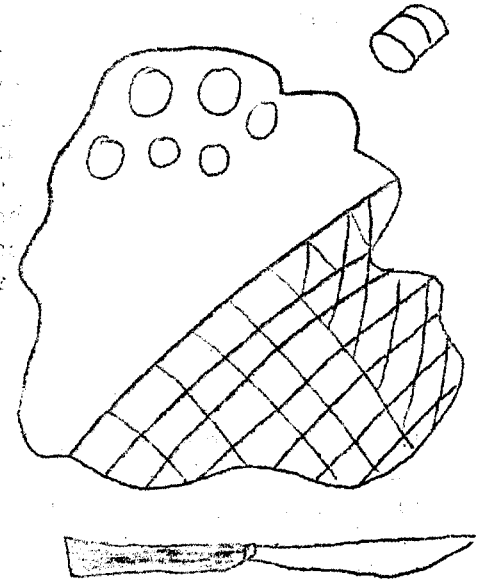
4. Now mix a cup of raw cornstarch with half a cup of COLD water. (Use foresight -- measure the starch into a bowl after you do the salt, and use the same cup for measuring water, and you'll have fewer tools to hunt up and clean up.)



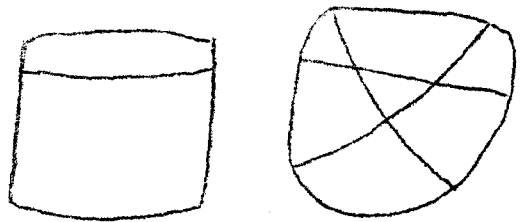
One pan.
One bowl.
One cup.
One stirring-spoon, preferably long-handled.



They clean up very easily indeed -- just rinse them under a faucet.

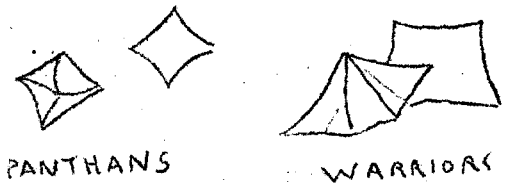


5. Pour the starch-liquid into the sizzling salt, and mix it all together, promptly and thoroughly. It may or may not take another minute or two of stirring and cooking, but you will soon have a mass of white putty. Let it cool and there you are. If you don't use it all up at once, just store it airtight. With all that salt, it couldn't spoil. A plastic bag or glass jar, tin can with cover, or the like will do. I put half of my first batch into a plastic sandwich bag, with a couple of rubber bands to keep it closed, put it on a pantry shelf and left it there for three weeks, then used it up with no observable difference of any kind.

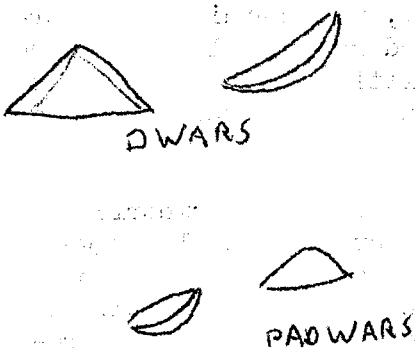


6. I found this material, once made up, very easy to handle. It is less tacky than most, and if your hands do get gummed up, a plain water rinse is good enough. It takes about any shape, and in the size of ordinary game-pieces, it will hold the shape well and will dry out in a day or so, without warping. The salt makes a slightly-grainy surface, but paint will fill it in. It must be painted for waterproofing, wear, and washability. It handles much like piecrust dough; you can roll it out, cut circles with a bottle top, and stamp designs in the circles for checker pieces.

7. Working out simple shapes that could be used for board games such as Chess or Jetan, I made up some Jetan sets, beginning with Pawn-pieces (or foot soldiers) made of a ball of salt-dough which is pinched with thumb and three fingers, to give four sides, and tapped lightly on the table or working-tray, to flatten the bottom. This shape will stand well on a board, has a good low center of gravity (which you can improve by inserting a pebble or BB-shot), and picks up easily by the peaked top. For a Jetan set, I tried to Think Barsoomian, but also had to keep in mind that moldable materials had best be worked up in simple shapes with curved lines. This does not mean that the Stanton or other designs could not be used; but as these are based on lines suitable for wood-carving, and we are working with a different material, it makes sense to create thick rounded shapes for convenience and optimum strength. Jetan has four foot-soldier pieces, two going straight forward and two on the diagonal.



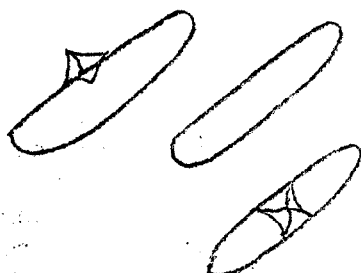
The piece which is smaller in value should be made smaller in size, to help in remembering its powers. Start quite small because Jetan pieces have such a wide range in values -- a piece the size of an oversized pea or an undersized Pawn would be about right for a Panthan. Roll it into a ball between the palms of the hands -- this is the way to start any game-piece in these plastic materials. You can get so you can make pretty even sizes and shapes, but you need a look at the ball first, to estimate the mass. It makes a handy shape to start from and works out any bubbles. The four-sided pinch gives a squared effect, which seems suitable for a piece that goes either straight or diagonally; and for the latter, an edge of a different color might emphasize its sidewise direction.



Also a bit of extra color is like insignia for the officers, and the Warrior seems to be a line-of-battle officer, like a corporal or a sergeant.

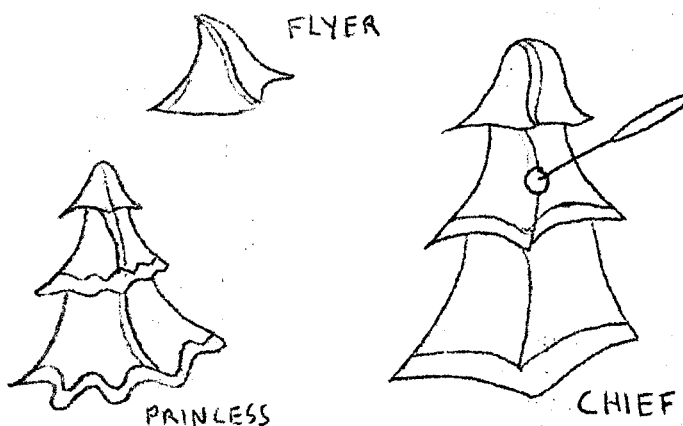
The diagonally-moving pieces can also be more slender as a mnemonic aid. The Pad-war goes two squares, so it should begin with a ball the same size as a Warrior, but I sort of smoothed off the side angles to produce a fore-and-aft shape. For the Dwar, which goes three squares, I tried adding a small turret, but they kept getting knocked off, so it is probably best to depend on size and color additions

THOATS



to differentiate it. The six-legged Throat can have marks on the sides for six legs -- stamp them in with a knife-point or nail -- but don't try to add little blobs for legs; they fall off for sure. So I just made a long flattened oval piece, with a tiny Panthan-shaped piece, well pulled-down at both sides, as a rider. The largest-value pieces were made correspondingly larger and in differentiating shapes: Flyer, Chief, and Princess. For the Flyer, start with an outsized Warrior and smooth it back from the front ridge to produce a winged triangular shape with back flanges. The Princess can have the four ridges ruffled a trifle, to look like a skirt, and another smaller piece added for a tunic, a third still smaller for a head -- decorate it all extra-fancy. I tried pearl-bead heads and glass jewels, but they do not stick well; you have to add topping pieces by pulling them down all around the tip of the next lower shape. The Chief is the largest of all, and can be given a toothpick sword, if you like, to look like a cloaked and helmeted quasi-barbaric sort of thing. I added a tiny dab of material for a fist to hold the narrow end of the half-toothpick, and with the help of paint it stayed all right.

Paint is quite a fun part of this. The larger the piece, the more color you add. The pieces are basically yellow and black, of course. You can use either model dope or enamel paint, which sinks in a little less. Either kind soon dries so that you can go on to the decorations. For the yellow army, I added touches of red, nice and gaudy. For the black pieces, blue went well, but it has to be a very light blue to show against the black -- might have to be mixed down with white in the jar lid. Helpful hint -- I keep a can of lighter-fluid handy to squirt on brushes -- cleans them right off, much handier than turpentine. Hands too. Besides using color for rank, I used gold model-dope on the yellow Chief and Princess, silver on the black, giving little costume touches to the Princess and a metallic helmet to the Chief. All that color makes a handsome set, and it's perfectly playable.



There is no reason why flat, cubical, circular, spheroid, or other geometric shapes, or other fanciful ones could not be formed; the above are merely suggestions to go on with. Certainly nobody needs to give up on a new game just for lack of sets on sale -- or the high price of the sets when you do find them. As long as you have the rules, the diagram of the board, and a large piece of cardboard, paste the rules on the back and shellac the board and then paint the design on the front to play on. Make up your own pieces and dry them on the board, paint them to suit, and invite your friends and relatives; without games, what would life be, I wonder? How about you?

A WARGAME VERSION OF SUMMIT
by Ernest Jacobson

In 1961 the Milton Bradley Co. published a game of global strategy called Summit. My wife and I purchased it because, prior to this, we had enjoyed many a pleasant social evening playing Parker Brothers' Risk with our friends. The basic premise of Summit is that in the contemporary world no rational man desires the outbreak of war. In the world of real-life politics I completely concur. In the field of games, however, we can safely revert to a state of primeval savagery and vent our aggressions. (Did you ever notice how husbands and wives go for each other's throats in a game of Risk?) To further digress for a moment, we can't give each team in a football game its own ball and tell it to run for the other team's goal. While kinder to the players, it would plainly be unfair to the spectators.

Summit, with all of its good intentions and educational potential, frankly falls flat when played by a sanguinary crowd such as ours. So let us transfer this elysian vision of the potential creativity and goodwill of man into a format of bloodshed and destruction...where it becomes more interesting.

For those of you who do not have a Summit set lying about the house, let me briefly describe the game. It is played on a polar projection of the earth. In the original game there may be up to six players who represent the following large land-mass powers: United States, U.S.S.R., South America, Western Europe, India, and China. Each of these "nations" carries a ten-point value. The eight-point land masses are Eastern Europe, Australia, and the Far East (Japan?). The six-point land masses are Mexico, the Arab Bloc (North Africa and Saudi Arabia), and Southeast Asia. Central America, the Philippines, and South Africa are worth two points apiece.

Each player starts with two air bases, two steel mills, and one factory, which are placed in his home country. At the start of and during the game each player receives one I-beam unit for each domestic steel mill and two I-beam units for each foreign steel mill. In addition to the I-beam "harvest", every three steel mills built yield to the builder one economic chip (black poker chip). Every three air bases built yield one military chip (red), and every three factories (which are converted steel mills) yield one popular chip (white).

During a turn players collect their "harvest" of chips and I-beams and then draw a card which represents a luck factor. Diplomatic action then follows, in which a player places one of his three kinds of chips in a land mass, foreign to his opponent, in which that opponent has air bases. His opponent must remove one air base or reply by putting down a chip of the same kind. The player may now reply with another chip of the same kind if he has one. This may again be answered and so on until one player decides to stop or runs out of that kind of chip. An even number of chips means that the air base stays, but if the attacker has one more chip than the original "colonizer", the air base is removed. Chips are never played in a player's home country. Players may borrow chips from other players.

Ultimately the players build, trading two I-beam units for each structure they wish to build. They may build steel mills or air bases, or convert existing steel mills to factories (also at the cost of two I-beam units). Air bases may not be built in the home country of another player, or in land-mass areas in which other players have previously built air bases.

Players may not build factories in nations which contain air bases of other nations except with the consent of the possessors of the air bases. The same goes for steel mills. Building an air base in a nation in which other nations have steel mills or

factories forces the removal of these units if the builder so desires. Every time a unit is removed the player who placed it there receives one I-beam unit as salvage. Again any agreement which players wish to reach along these lines is permissible.

This is as far as I need go in describing the regular game. In the absence of a Summit set any world map may be used. Cardboard squares labeled "steel mill" on one side and "factory" on the other will serve admirably. Painted checkers can serve as air bases. Toothpicks can be used for I-beams and poker chips for the three types of "diplomatic" chips. For armies as described later, the Kohner Company produces a useful product called "woodies", which are painted blocks of wood. Ships may be cardboard rectangles with M (for merchant marine) or B (for warship) imprinted on them.

If you want to know how to win the original game, or what the luck-factor cards say, buy the game. I am only suggesting another use for its equipment. The following, then, is a set of rules for a new version of Summit which should provide many an enjoyable social evening for the more bloodthirsty among us.

Rules for a Wargame Version of Summit --

Preparation of the Board -- The oceans must be divided on the map by means of solid lines. These ocean bodies should be the Atlantic, the Pacific, the Indian, the Caribbean, and the Mediterranean-Suez. If an ordinary world map is used, divide up and print the areas previously described.

How to Win -- If two play, the winner is the first person who controls (has units in) 70 points worth of land-mass areas. If three play, the victory criterion is 60 points, and if four play it is 50 points.

Preparation for Play -- Each player receives two steel mills, two air bases, and one factory, which he places in his home country. In the first round the Western Europe player goes first, the player on his left second, and so on in a clockwise direction. In the next round the player who went second goes first, and so on.

The opening stages of the game follow the prescribed Summit rules. A turn for each player consists of collecting his I-beam units and chips (after which all players follow suit), carrying out diplomatic action if he desires (after which all players do the same), and building. Remember that, in building, all units cost two I-beams; steel mills must first be built (for two I-beams) before they can be converted to factories (at an additional cost of two I-beam units).

Building in Foreign Land-Mass Areas -- There is no limit to the number of units which a player may build in a foreign land-mass which is adjacent (by a land connection) to his nation. Although he may build mills and factories in a nation in which an opponent has military bases, he must remember that he can be ordered to dismantle these units (receiving only one I-beam per dismantled unit in salvage) at any time by the possessor of the bases. Domestic steel mills yield one I-beam unit per turn to the builder, and foreign steel mills yield two.

If water separates a player's home country and a land mass in which he wishes to build, the player must build one merchant marine (peacetime ship) in each body of water which separates his nation from the nation in which he wishes to build -- i.e., there must be one merchant marine piece in each separating body of water for each unit built per turn.

Placing a warship in a body of water is equivalent to placing an air base on land. The first player who places a warship in any body of water may remove all ships of

other players if he so chooses. Warships may be removed from bodies of water by the application of military, popular, or economic chips as was the case with air bases. Only one nation may have warships in any body of water at any one time. Merchant marine ships so removed may be scrapped for a return of one I-beam unit, or, if possible, may be retreated to an adjacent body of water in which there are no enemy warships.

Building Armies -- Armies are built at the expense of two I-beam units. They may be built in any nation in which a player has air bases and factories and the potential to build units (i.e., has ship connections where necessary). The number of armies built per turn may not exceed the number of factories which a player has in that nation. The total number of armies which a player may have on the board may not exceed his total number of factories. If factories are removed, army units must also be removed, but at no salvage compensation.

Moving Armies -- Armies may be moved into any adjacent land mass in which a player's own bases are located. Movement may also be by sea. Moving takes place after the building portion of the turn. There is no limit to the number of armies which a player may move during a turn.

When armies are moved into a land mass in which another player has bases, war is considered to have broken out and diplomatic action ceases. Each player turns in all diplomacy chips which he has, receiving one army for each complete set (one each military, economic, and popular) of chips which he possesses. Players may exchange chips if they desire.

Each invading army removes one defending army already in the nation. One invading army is itself removed for each defending army removed. After all defending armies have been removed, then the bases are removed as follows: one excess army may remove two air bases (and be itself removed from the board); if one excess air base remains, the final army may remove it, but is not itself removed. Invasions may be launched jointly between players, but when all defending armies and bases have been removed, one nation must withdraw its army units to an adjacent country in which it has bases. Its armies can also be withdrawn by sea, if friendly ships are in waters adjacent to both the invaded country and a suitable country for removal. Units may only be used in one invasion per turn. All factories and mills of the defender are dismantled, and one I-beam unit for each is given to the victor.

The intended victim can avoid all of this bloodshed if he retreats his armies to an adjacent land mass (or to one which is accessible by sea) in which he has bases. Here the bases and factories are dismantled, but the I-beams go to the defender.

Battleships are removed in the same manner, one invading and one defending fleet being removed together, with the winner being the player with units remaining (as in the land battles).

If all armies and bases are removed from a player's home country, that player is out of the game. All of his factories are scrapped, and the invador receives one I-beam unit for each factory, mill, and base, and for each merchant-ship counter. All I-beam units received as the result of conquest may be employed immediately.

Optional Rules --

1. Air Power -- Air force units (these may be paper clips dipped into paint of an appropriate color) are built in a manner identical to the armies. One invading air force unit removes one defending air force unit (and is itself removed). Air force units may be moved by the invader from any nation to any other nation during his attack. The invader must destroy all of the defender's air force units

before his invasion can commence. (He may also talk another player into lending him aircraft, but these can not have been used by that player during this round, nor can they be used again during the round.) Should the invasion succeed, these air force units are left in the conquered land mass until the next round. Each army and air force combination may now remove one defending army or two defending bases without either of the invading units being itself removed. Aircraft alone may not remove defending armies or bases. Should a player be unable to remove all of an opponent's aircraft, the invasion can not take place. Aircraft units may also be placed on oceans, where their function and use is identical with that on land -- that is, one invading air force unit removes one defending enemy air force unit, and each ship supported by one aircraft removes one enemy warship. The total number of airplanes may not be greater than one-half the total number of factories.

2. The Atomic Bomb -- I-beams may be stockpiled. Two I-beam units may be turned in in exchange for the destruction of any one enemy unit, anywhere on the board. The atomic bomb may be used preparatory to an invasion.

((Mr. Jacobson's version of Summit sounds very interesting. We (and Mr. Jacobson, we are certain) would be interested in hearing from our readers who give the "Wargame" version of Summit a try, and from any readers who might have additional suggestions for improving the game. For additional articles on wargaming, we refer you to PICKLEHAUB, the magazine of the Games Bureau's War Games Division (Bill Bogert, Apt. 202, 216 South Rexford Drive, Beverly Hills, Cal., 90212; free) and to the outstanding "Journal of American Wargaming", STRATEGY & TACTICS (Box 11-187, Loudonville, New York, 12211; 60¢ a copy, \$5.00 per year (monthly). --ed.))

A TOPOLOGICAL PUZZLE
by TDC Kuch

Problem: Draw a closed figure, composed of the fewest possible lines (straight lines, circles, or arcs) which satisfies the following conditions:

1. It conforms to the 4-color map theorem, and
2. Erasing one line only of the figure will yield a closed figure conforming to the 2-color map theorem. Leave no lines "dangling" or "sticking out".

(Some definitions and hints for the non-topologist:)

Only 4 colors are required, on any two-dimensional map, to avoid giving adjacent contiguous areas the same color (try it on a U.S. map). This has never been rigorously proven, but a nearly-exhaustive search has failed to produce a disconfirming instance. This is called "the 4-color map theorem".

Only 2 colors are required, however, if all boundary-lines on the map run from edge-to-edge. This is called "the 2-color map theorem".

To determine "the fewest possible lines", bear in mind that a 4-color map must contain at least 4 bounded areas, and that each area must "touch" each other area. A 2-color map, likewise, must contain at least 2 touching bounded areas.

(Answer on page 32)

((The above puzzle was originally published in INTERIM, a British monthly; it is copyrighted by the author, and is reprinted here with his permission. --ed.))

Subscribers to THE GAMESMAN may also be interested in RULESHEET PORTFOLIO #1, covering Wari, The Naval War Game, The Jungle Game, "King" Chess, and Nine Men's Morris, which is available from the editor for 35¢ (25¢ to Regular members of the Games Bureau). DLM

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CHESS PROBLEMS -- AN INTRODUCTION
by Don Miller

I. Introduction.

A "Chess problem" is a position on a Chessboard which is constructed in such a manner that there is one move, and one move only, on the part of the player whose turn it is to move, which leads to a forced checkmate in a specified number of moves. It generally is designed so as to illustrate a particular "theme" which the composer has in mind with relation to the powers of the Chessmen in their interaction with each other.

There are two principal families of Chess problems:

1. "Orthodox" problems -- The same men and board are used as in the orthodox version of Chess, with White checkmating Black in a specified number of moves.
2. "Fairy" problems -- Men of different powers and boards of different types are used than those employed in orthodox Chess, and/or the play of the game is subject to special conditions.

This article and future articles in THE GAMESMAN will deal only with orthodox problems, principally of the "direct-mate" variety. "Fairy" problems, "self-mates", and "retractors" will be covered in YE FAERIE CHESSEMAN.

In the orthodox Chess problem, White is always assumed to move first and he always moves up the board. The position must always be one which is "legal" -- i.e., it is possible to reach in an orthodox game -- even though the arrangement of the pieces may be one which would very unlikely be arrived at in normal play. Only pieces from the game-array should be on the board at the start of the problem, although, in the solution of the problem, promotions may be allowed just as in normal play. Castling is allowed in the solution of the problem only if it can not be shown that either of the pieces involved in the castling must previously have moved. "En passant" Pawn captures are permitted during the course of the solution, but they are generally not used as "Keys" unless it can be proven that the last move by Black involved a two-square advance of the Pawn being captured.

The first move in a problem is called the "Key-move", or "Key". This is the move made by White which leads to a forced mate of Black no matter what Black does in reply. If more than one such move is possible for White, then the problem is "cooked", the alternative move being known as a "Cook". A "cooked" position is caused by an oversight on the part of the composer of the problem, and is considered ruined.

A good Key should not be an obviously strong move; it should not be a checking move or capture and should not reduce the mobility of the Black King or of any other Black piece. The best Key is a "quiet" move -- i.e., a move which, on the surface, appears to be weak or aimless. If the Key increases the freedom of the Black King and/or some of the Black pieces, all the better! A good Key should also be helped by the presence of one or more "Tries" -- a "Try" being a move which looks like a Key, but which proves, after analysis of the problem, to have an adequate response by Black.

Black generally has available, after the Key-move, a choice of several moves which all lead to different mating moves by White. These choices are called "Variations", and it is in these Variations that the "Theme" of the composer generally lies. Where more than one mating move is available to White after a Black move, the mating moves are known as "duals", "triples", or "multiples", depending on the number of such moves available. If such mates can be forced by

various Black moves, the dual is "minor"; if they cannot be forced by Black, but are entirely up to White, the dual is "major". "Major" duals are considered to weaken the problem in which they occur, as they can lead to unthematic solutions or wasted play in solving the problem.

II. Classification.

There are two main types of "direct-mate" problems:

1. The "Threat" or "attacking problem", in which the Key-move threatens an immediate mate, and must be directly refuted by a move on the part of Black.
2. The "Block" or "waiting-move problem", in which the Key-move in itself does not threaten mate, but instead, Black, in his reply, has only moves available which weaken his position and thereby allow White to mate him.

Blocks may be further subdivided into "incomplete Blocks" and "complete Blocks". In the former, mates are "set" for some of Black's possible moves, but not for all, in the initial problem position -- the Key must therefore provide White with mates for all of the Black moves not already having "set mates" awaiting them. In the latter, mates are "set" for all of Black's moves in the initial problem position, so the Key must be a move which:

1. Does not disturb the set mate (i.e., White must find a way to "lose a move"); such Keys are seldom used nowadays because of the ease with which they may be solved; or,
2. Adds new mates (such problems being known as "added-mate problems"); or,
3. Replaces one or more of the set mates with new mates (such problems being termed "mutates").

III. General Terminology.

The square on which the King stands and the squares adjacent to this square are known as the King's "field". If a square is under attack by one or more pieces, the square is said to be "guarded"; thus, if a square were guarded by a White piece, the Black King could not move there until the square was "unguarded" -- i.e., the guard was removed or cut off. If a square is occupied by a piece of the same color, it is said to be "blocked"; thus, the Black King could not move to a square occupied by a Black piece until the square was "unblocked" -- i.e., the piece either moved away or was captured by White. If any of the squares in the King's field are not "covered" (i.e., blocked or guarded), the squares are known as "flight-squares".

A piece that is in a position wherein it may be captured on the next move is said to be standing "en prise". A move in which a piece is offered to the enemy to be captured is a "sacrifice". The luring away of a piece to a square where its effectiveness will be reduced is a "decoy". A move which takes a piece away from its apparent immediate objective is known as a "withdrawal".

"Line-opening" occurs when a piece moves so as to permit another piece (of either color) to move through the vacated square; if both pieces involved in a line-opening are of the same color, the move is called a "clearance". A "line-closing" is, of course, just the opposite of a line-opening; line-closings wherein a piece moves to a position between another piece of the same color and the objective of that piece are called "interferences" (an "interference" differs from a "block" in that the block keeps a piece from moving to the occupied square, while the interference keeps a piece from crossing the occupied square). If the two pieces involved in a line-closing are of opposite colors, the move is known as a "shut-off".

A "cross-check" occurs when a White piece shuts-off a Black piece checking the White King, and in doing so either gives mate itself or "clears" another White

piece which is then giving mate (i.e., "discovers" mate). Checks given in the manner described above are also termed "cross-checks", but do not occur very often in problem-play. Cross-checks provide some of the most interesting problem Themes.

When a piece is so placed along the line of movement of an enemy piece that its movement away from the line would expose its own King to check by the enemy piece, the piece is said to be "pinned". A pinned piece may be "unpinned" by an interference, by a withdrawal of the pinning piece, or by a withdrawal of the King. "Line-pinning" occurs when a piece is pinned so that it can move in one direction along a line, but not in the other.

A "battery" occurs when two pieces of the same color are aligned so that movement of one of them will result in the other attacking an enemy square, line, or piece. If the battery is aimed at the King, it is a "direct battery"; if it is aimed at any of the other squares in the King's field, it is an "indirect battery". If a third piece of either color stands along the line of a battery, the battery is said to be "masked".

A mate in which every square in the Black King's field is either guarded by a single White piece or is blocked by a Black piece is a "pure mate". A mate is "impure" if one or more squares in the Black King's field are guarded by more than one White piece per square or are both blocked by a Black piece and guarded by a White one. If every one of the White pieces (with the possible exception of the King and Pawns) takes part in a mate, the mate is known as an "economical mate".

"Model mates" are mates which are both "pure" and "economical". If none of the squares in the Black King's field are occupied, and the King is not on the edge of the board, the mate is termed a "mirror mate".

An "echo mate" is a mate in which there is a marked similarity in the arrangement of the mating pieces, but there is a difference in one of the following:

1. The square on which the Black King is standing when he is mated;
2. The piece by which the mate is given;
3. The square on which the piece giving mate is standing;
4. The pieces guarding the King's field.

IV. History and Problem-Length.

The composition of Chess problems dates back to the Middle Ages. The earliest Chess problems were of great length, and were mostly based on forced sacrifices or a long series of checks wherein Black had little choice of defensive play. Extra pieces which took no part in the problem-play frequently were added to give the position a game-like appearance. Such problems were commonly used for betting purposes -- i.e., the solver would bet against the composer that the problem could not be solved in a particular number of moves.

A transition began to take place about a hundred years ago, when problems began to be considered from an aesthetic standpoint. It was gradually recognized that it was inartistic to show a Theme in seven or eight moves, for example, if only three were actually required for its presentation.

The most common length for a modern Chess problem is two moves (i.e., White makes the Key-move on his first move and mates on his second). Modern "two-movers" tend to differ markedly from the problems of longer length; two-movers are too short for the development of complex strategic combinations, but allow for a wider range of Variations and much greater complexity in an individual Variation than is generally practicable in a longer problem. Thus the emphasis in two-movers is usually on "beauty" of Theme and excellence of construction.

Problems of three moves or longer are usually Threat problems. "Three-movers" are designed to illustrate some interesting type of strategy in the moves leading to the mates (and are known as "strategic problems") or are composed purely for the beauty of the mating positions themselves. The latter are subdivided into "model mate problems", in which there are two or more model mate positions, and "echo mate problems", which are constructed to show the "echoing" of an interesting mate which is not a "model".

Three moves is considered by many to be the ideal problem-length, combining the beauty of the two-mover with the profundity of the four-mover. Problems of four moves or longer are uncommon nowadays, due to their complexity in composition and solution. Those that are composed are usually either "miniatures" (i.e., problems with seven pieces or less) or strategic problems designed to illustrate a striking Theme, with no secondary Variations.

V. Problem-Solving.

Chess problems should be solved entirely from the diagram. Solving from a board may be easier at first than solving from a diagram, but, with practice, the solver will eventually discover that solving from a diagram is quicker, easier, and more beneficial to the solver in that it ensures an accurate, thorough analysis of the position and strengthens the memory, increases the power of concentration, and sharpens the perception of the solver.

In general, the solver should attack a problem by examining the mechanical construction of the problem ("Constructive Solving") and/or trying to discover the Theme of the composer ("Thematic Solving"). In practice, the beginner will usually find himself playing out the Variations, and in so doing will eventually discover the Key.

In well-composed problems the solver should automatically eliminate checking moves and captures from consideration for possible Keys; unfortunately, however, not all problems are well-composed, so whenever a solver runs across an original problem receiving its first publication, it would be advisable for him to quickly run through the first moves for White which entail checks or captures to ensure that the composer has not "goofed". And if, in studying a problem, the solver discovers a Key which seems to be too simple or breaks the "rules" of a good Key presented in the introductory section of this article, he has probably discovered an unintentional Key ("Cook") and should continue to search the problem for the Key which was intended by the composer.

In Thematic Solving, the solver examines the position to try and determine what type of thematic play is illustrated; then he looks for the Key-move which is necessary in order to force Black into the Variation or Variations which constitute the Theme -- rejecting all Keys which do not allow the Theme. Thematic Solving is generally the most rewarding method of solving a problem.

Constructive Solving consists of:

1. Searching for constructional weaknesses in the problem (e.g., a White piece so far out of action in the initial position that the only possible way to get it into action is to use it for the Key-move). Constructional weaknesses, of course, should not appear in a well-composed problem.
2. "Elimination" -- i.e., examination of the position and consideration of the possible use of each White piece. This will often enable the solver to reduce the possible Key-movers to only one or two pieces, through the elimination from consideration as Key-movers of those White pieces the moving of which would have no purpose or would allow Black too much freedom.

3. Consideration of the possible moves of the Black pieces and how they will affect the position -- particularly of the Black King and the pieces in his field. This method also involves the consideration of set mates and consideration of a Key which would provide mates on any of the King's flight-squares. This method usually results in the discovery of the Theme of the problem, and is often used in conjunction with Thematic solving.

In solving two-movers, the first step should be to determine whether the problem is a Threat or a Block. This is done through Constructional Solving, by examining the moves available to Black. Threats are generally characterized by the apparent freedom of movement of the Black pieces; in a Threat, no Black moves have any connection with the solution except those which can defend against the threatened mate. A freely-moving Black Queen is usually a strong indication of a Threat.

If the movement of the Black pieces in general appears to be restricted -- and most or all of any Black Pawns present are blocked (particularly by White Pawns), the problem is usually a Block. If, on further examination, it is found that most of the Black moves have set mates, the problem is probably an incomplete Block; if all the Black moves have set mates, it can be assumed the problem is a complete Block.

Once the problem has been classified as to type, it can then be attacked through Thematic Solving or further application of Constructional Solving.

Solution of three-movers is perhaps the most rewarding pursuit for a solver. Three-movers are often easier to solve than two-movers, due to the lesser number and lower degree of complexity of Variations in three-movers. The better three-movers, however, will require a good deal more effort in their solution than will the solving of two-movers in general, because of the extra move afforded both White and Black, and the depth of the strategic combinations that may thereby be presented.

Some three-movers may be a combination Block and Threat -- i.e., they may use a block as the Key, with a threat occurring on White's second move. However, most three-movers are Threats (sometimes with blocks occurring on White's second move), so, unless the setting of the problem definitely indicates a Block, the solver can concentrate on Keys providing Threats.

The solver should try to determine whether the aim of the composer is to illustrate some interesting type of strategy in the moves leading to the mate, or to show the beauty of the mating position itself. "Open" settings -- i.e., with relatively few Black pieces, or with one or more flight-squares for the Black King -- frequently indicate that the composer's aim is in the mating position. A position with numerous Black pieces -- particularly mobile ones -- suggests a strategic problem wherein the composer's interest is centered in the play rather than in the mating position.

In solving three-movers once the composer's aim has been discovered, the solver should first apply Thematic Solving, and search for Themes which are readily-apparent, such as Pawn promotions, "en passant" Pawn captures, interferences, cross-checks, mirror mates, and model mates.

If there are no readily-apparent Themes, the solver should turn to Constructional Solving -- examining the Black King and any flight-squares he may have; examining the position of the White King for possible checks on Black's second move (if such a check is found, it generally indicates that White's second move is

a checking move); checking the position of each White piece, especially Pawns, to determine their purpose and eliminate those which must remain in position throughout the problem; considering the purpose and location of each Black piece; and searching for constructive weaknesses. The final solution may thus depend upon a return to Thematic Solving or the use of both Constructional and Thematic Solving.

Solvers of three-movers -- indeed, of problems of any length -- might be well-advised to try a few checks at the beginning of the problem in order to learn what they can of the powers of the pieces involved and their relationship with each other. Solvers should also be prepared for sacrifices, and should not consider the normal value of a piece when making a sacrifice; in a problem, it is the position which determines the value of a piece, and Queens are often of less value than Pawns.

Problems of four moves or longer are usually easier to solve than are problems of shorter lengths, due principally to the lack of Variations. In general, the same solving methods are used for four-movers as are used for three-movers. Most four-movers are Threats, and their settings generally indicate whether they are strategic problems or model mate problems.

A Black force composed of only King and Pawns (and sometimes a single minor piece) indicates that the problem is most likely composed to illustrate the mating positions. Model mate problems are indicated by an open setting with the Black King's field only singly guarded or blocked, or with the Black King having one or more flight-squares. Model mate problems should not be regarded as fully solved until all the model mates in it have been worked out.

The complexity of the position, an excessive number of guards on the King's field, or perhaps just the general arrangement of the pieces may indicate that the problem is a strategic one rather than a model mate, and may provide a clue as to the composer's Theme.

Solvers are advised to familiarize themselves with all of the different methods of problem-solving; however, some solvers will be more proficient in one method or combination of methods than will others -- and, before Thematic Solving can be applied with fullest effect, it is necessary for the solver to familiarize himself thoroughly with the numerous Themes which occur in Chess problems.

VI. Conclusion.

Future articles on Chess problems appearing in THE GAMESMAN will present discussions and illustrations of the various Themes, and will go into more detail on most of the generalized, over-simplified definitions and explanations appearing in the present article. Future articles will also present orthodox problems to be solved, and, if there is sufficient interest among our readers, we will run a problem-solving contest in the form of a "solving ladder".

A partial bibliography for persons interested in more information on the composing and solving of orthodox problems follows:

- Howard, Kenneth S. -- How to Solve Chess Problems (Dover; N.Y., 1961).
- Howard, Kenneth S. -- The Enjoyment of Chess Problems (Bell Pub. Co.; Drexel Hill, Penna., 1951).
- Mansfield, Comins -- Adventures in Composition: The Art of the Two-Move Chess Problem (Daily Post Printers; Liverpool, England, 1948).
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- Rayner, James -- Chess Problems: Their Composition and Solution (George Allen & Unwin Ltd.; London, 1948).

BOARD STIFF

When one looks at the dates on these letters, one realizes that it has been a long time since the last (#3) issue of THE GAMESMAN came out....

John Boardman -- 592 16th St., Brooklyn, N.Y., 11218 (20 Mar 66)

. . . I have played out the discrepancy in Jetan noted by Blake and Simpson, and have come to the conclusion that Burroughs revised the rules of the game in the course of writing Chessman Of Mars and included this revision in the appendix but not in the game which was part of the plot. In some parts of the world, according to Murray's monumental work, the queen is always placed to the left of the king in Chess, without regard to color. . . .

Daniel J. Alderson, 6720 Day St., Tujunga, Calif., 91042 (15 Jun 66)

To Terry Kuch (THE GAMESMAN #3):

You give computers and programmers too much credit, or else massively underestimate the problems involved in "solving" Chess or Go. Mathematically speaking, games such as Chess and Go are "Games of Perfect Information" and thus trivial. One can easily write a computer program that would "solve" Chess if we had a computer with sufficient memory storage capacity and an adequate combination of computer speed and computation time. But physics, at least as presently understood, says that the most effective possible organization of all the matter in all the galaxies in the observable universe, working at the maximum physically possible speed, could not complete the "trivial" analysis of Chess in less than many googols of years. And we have absolutely no guarantee that human cleverness can ever reduce the exact, mathematical solution of Chess to a physically performable magnitude. Further, mathematicians and programmers are making essentially no progress toward the exact solution of Chess or anything of that sort; the increasingly successful Chess-playing computer programs (which just may, eventually, become able to defeat any human Chess Master) make no attempt whatever to solve Chess; instead, they analyse minute sub-games composed of a very few successive moves and attempt to apply these results in an essentially heuristic manner to the actual game. I will be very surprised indeed if (barring some sort of major overthrow of all our present fundamental concepts of physics) Chess is ever exactly and mathematically solved. Thus, I think you are worrying over nothing. But we'll both be here 10 (and 25) years from now, probably, and one of us can tell the other, "I told you so!".

As for the question, "Is there a third way?", sure. What you seem to want is an emotional game (rather than logical) with no definite rules. I suggest you try politics, or sex. On a more serious note, multiperson games of the sort typified by Diplomacy seem quite safe from "destruction" even by the sort of unphysical super-computer you seem to visualize. Here, the game hinges on what alliances one can make, how trustworthy your allies are, etc. This "human element" is so strong that mathematicians haven't even been able to arrive at any reasonable definition of a solution for multiperson games, much less a technique for solving them.

Stan Woolston, 12832 Westlake St., Garden Grove, Cal., 92640 (13 Sep 66)

If I had the time, it would be the "Fairy" games I'd be attracted to. I'm not very proficient in Chess (don't take the time to play it very often) or cards -- though in a few games I'm not bad; still, it is the imaginative aspect that attracts me, and I've invented games of cards, and other games for that matter. One of my interests is "magic" (of the stage sort), another "cryptography". In magic I mainly read about it, practice a little (maybe enough to do something or at least to know how -- and to see if it could be altered to seem more spectacular) -- and in codes and ciphers I invent them and try to develop procedures for breaking them without the key. In other words, I have a bit of deviousness in my nature. . . .

Music doesn't interest me enough to be a buff in any of the varieties, but I like to listen to something not too new (well, some of that -- electronic music -- now and then, but mainly semi-classics or old pop songs of the "great bands" period seem to be my cuppa tea -- mainly because I can hum or sing it to myself, maybe). I've a fanfriend in L.A. who plays, composes music, and invents musical instruments; he's also a linguist, translator into or out of Russian and many other languages. He seldom goes to club-meetings; I guess he's not been to one in 10 years, because of transportation problems, mostly. Ivor Darreg may not be known too widely. He's belonged to one of the mundane apas, but doesn't now -- however, he still produces a publication that touches on some of his interests (invention and info on inventing, sound advisor, spelling reform groups, general semantics, etc.).

I mention this because it seems to me there are other things more closely tied in with games than music. Magic is a sort of game; it's a suspense game with its rules and aims. So is cryptography -- at least the matter of breaking down secret messages of one sort or another. (During World War II I wrote to John Campbell to tell him a letter had at least one hidden message in it -- and there might have been others, but I could only prove it in one case.) Oh, the letter was in BRASS TACKS, in the form of a mythical "order" with numbers and odd-sounding words -- one of the joke things that could stand on its own feet but which contained a brief message if you looked at it correctly (hidden among the other words).

Systems of "codes and ciphers" can be intriguing, and ways to hide them are many; however, the system has a danger, because if too complicated the time and chance of error are enhanced. Anyway, even without a special cryptography section you might consider having an article on the subject or a message to be solved by those who are interested.

And about games, there's a Theory of Games, I hear. What is it? Maybe an explanation of that would be beneficial or interesting.

About card games I've invented -- they were solitaire -- but I imagine that some could be adopted to group play. . . .

((In case you may be wondering, readers, this letter was, for the most part, written in response to the ill-fated attempt to start a Classical Music Division within the Games Bureau. However, we welcome Stan's suggestions about Cryptography. We would welcome any material on this subject which any of our readers may wish to send -- articles, cryptographic puzzles, or anything of the sort. This was our field during our 6½ years of military duty, and has always been one of our strong interests (but we hope someone else will write about it -- it takes enough time to edit these magazines; if we had to write all the material ourself, too, the 'zines never would get out (look at YE FAERIE CHESSEMAN #3, for example)). Also, we would welcome any material on Games Theory; we'd like a general article, explaining what it's all about, in particular. Also of interest would be an article on the use of Games Theory in Operations Research and Systems Analysis -- or an article on O.R. or Systems Analysis which describes not only the use of Games Theory, but the other tools such as Simulation, Probability, Linear Programming, etc. And an article on the history of military wargaming might also prove illuminating. We welcome any material on any games-related subject on which you might wish to write -- in a formal article, or in an informal letter, as you see fit. The sooner we get enough material for issue #5 of THE GAMESMAN, the sooner issue #5 will be out. --ed.))

John W. Andrews, 10 S. Orchard St., Apt. #3, Madison, Wisc., 53715 (6 Dec 66)

. . . Just before I left Holloman Air Force Base, I found out about a very peculiar and ingenious game -- one that neither I nor very many others are ever going to play, as it is played on a computer while it is actually running. The game is called "Space War" for the PDP-1 machine. Now, this game depends upon a very complex and clever computer program, composed by some unknown party. The

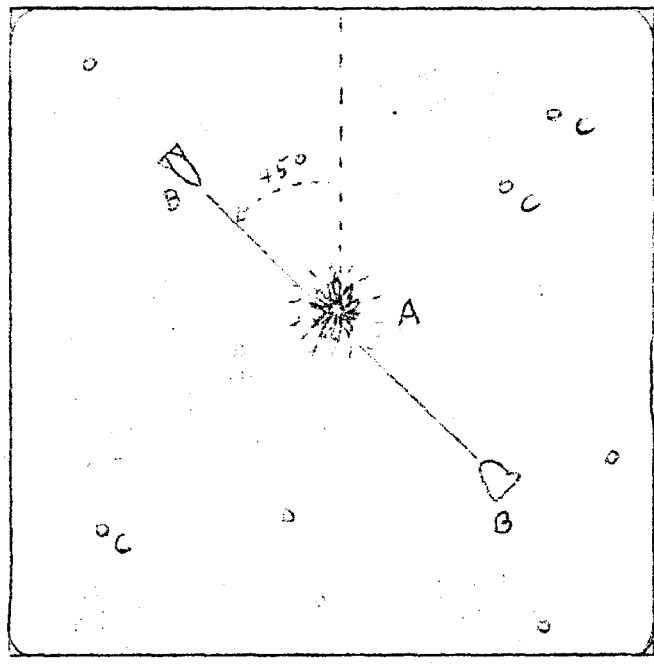
personnel at the base have a copy of this program, but only in its "absolute" form; that is, it is a large bunch of numbers, in the form the machine actually uses. Thus it tends to be a perfect "Black Box", insofar as knowledge as to how it works is concerned. The people at the installation . . . play this game with one another when the machine is not processing important data for Uncle Sam. Some of them have become quite proficient.

Naturally, they are curious to know how the program was constructed; who did it; and what the general plan is behind it. But in order to tackle any of these questions, the airman programmer needs to get a listing or paper tape of the "original" version of the program, and not just a bunch of numbers. Also, if he could get this, the programmer could possibly learn how to develop a similar program for the PDP-8 (a completely different machine). In addition, the programmer would like to study the program for recreational and educational purposes. He is supposed to do much simpler programs in the line of duty that involve such a real-time display device. Finally, he would like to learn how to construct his own games.

I have a feeling that S-F fans are particularly likely to know from whom, and where, to get such a listing. . . I have one other clue: the persons ((who know about this listing)) are most likely to be in the State of Massachusetts, as that is where the machines are made, and that is where many have been rented or sold. . . I am also interested in the game "Bridges" for the PDP-1; and the curious kaleidoscopic display program (not a game) called "Snowflake", for the PDP-8.

. . . Description of the game: Real-time display game for the PDP-1; 2 players. Game is fed into core by usual means, on paper tape. Program sets up display of standard starting position (see diagram below): several fixed dots of light representing "stars", a larger fluctuating central light (the "Sun" -- optional; may be omitted for inexperienced players); and 2 conventionalized blips symmetrically placed with respect to the Sun, on a 45-degree radius vector, angle 135 degrees thru Sun.

Starting Position of "Space-War" Game:



- A -- "Sun".
- B -- Ships.
- C -- "Stars" (not all shown).

Object of game: for one player to destroy his opponent's space-ship without his own being destroyed. Ships can be distinguished by their shapes, as to who own them.

Ways in which a ship may be destroyed: a. Both ships collide; b. a ship is struck by a "ray" fired by the other ship or by itself; c. a ship falls into the Sun (the Sun exerts a quasi-Newtonian attraction on both ships; it causes them to go into orbits around it -- either elliptical or hyperbolic); d. a ship goes into "Hyperspace" and re-emerges on the board touching one of the fixed blips representing "stars".

Description of firing a "ray": When control key is depressed, a miniature blip with a tail is ejected from the nose of the ship, having a small velocity plus the velocity accrued from acceleration of the ship. These "rays" travel only a finite time before winking out; they may enter Hyperspace; each player is limited to 36 volleys; volleys are continuously emitted as long as key is in "on" position.

Conditions for entering "Hyperspace": a. When a ship or ray reaches the outer limits of the board (i.e., the raster or display screen), it re-enters the screen at a point opposite defined by the natural scanning pattern of the hardware that makes the blips (similar to cylindrical Chess, in which the board is considered to close on itself on the other side, except that all sides are re-entrant here ((something akin to Anchor-Ring Chess board --ed.))). b. One key is to turn ship to left; another is to turn ship to right. If both are depressed simultaneously, ship winks out and re-enters board at a point difficult to determine (and not from the edge -- it merely reappears on the board).

Acceleration of a ship: Each player has a key which, when depressed, causes a short trail of light to appear at the end of his ship-blip. The ship is then accelerated; its new velocity is determined by Newton's Laws of Motion when it is accelerated by Sun or just coasting freely. However, the "fuel" is limited -- the exhaust-trail very slowly shortens and then winks out. (There is some dispute as to whether a ship is accelerated less when nearly out of fuel; if true, this implies that ship is not powered by chemical rocket.) Entry to Hyperspace and the firing of volleys are independent to amount of fuel.

Signal of end of game: The program automatically puts out all blips. They reappear, in standard starting position for the next game. If one ship is destroyed, program "waits" a certain cycle to see if other ship is also to be destroyed. Manifestly, a player who destroys enemy, but at cost of his own ship, could be considered to have played a draw.

In case a definite source for the listing is known, I enclose the address of the airman who desires to find out about "Space-War". Also, I enclose a technical account of just what he needs: ALC Thomas E. Schwab, Box 2633 CMR, Holloman AFB, New Mexico, 88330, urgently requests information about the following: FIO-DEC listings or paper tape of "Spacewar" for the PDP-1 digital computer. Alternates: ASCII listing or paper tape of FIO-DEC listing or paper tape for any of Digital Equipment Corporation display games (such as "Bridges" for the PDP-1, or "Snowflake" for the PDP-8).

((It's been such a long time, ALC Schwab has probably either obtained the info he wanted or given up -- or maybe he is out of the AF, or no longer at Holloman AFB. At any rate, "Space War" sounds like a fascinating game, and we publish the above letter for the benefit of those gamesmen who have access to a computer. If anyone has any of the information desired by ALC Schwab, try and send it to him -- it may still reach him -- and please send us a carbon for our files and for possible publication. We apologize to John Andrews and ALC Schwab for the delay in publishing this letter. We'd also be interested in publishing a description of any unusual games any of our readers may come across. --ed.))

Solution to Topological Puzzle on page 22:

This 4-color figure is composed of one circle and two arcs.
Erasing the dotted arc will yield a 2-color figure.

